

U.S. Department of the Interior
Bureau of Land Management

Preliminary Environmental Assessment
DOI-BLM-NV-L010-2011-0011-EA
June 2011

MIDWAY GOLD PAN PROJECT
Exploration Amendment

Pan-Nevada Gold Corporation
Ely Nevada:
MGC Resources Inc.
Point at Inverness, Suite 280
8310 South Valley Highway | Englewood, Colorado 80112

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Phone: 775-289-1800
Fax: 775 289-1910



Table of Contents

1	INTRODUCTION	1
1.1	Background	1
1.2	Purpose of the Proposed Action	1
1.3	Need for the Proposed Action	4
1.4	Relationship to Planning	4
1.4.1	Conformance with BLM Land Use Plan(s)	4
1.5	Relationship to Statutes, Regulations, or other Plans	4
1.6	Scoping and Issues	4
1.7	Public Scoping	5
2	DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION	6
2.1	Introduction	6
2.2	Proposed Action	6
2.2.1	Access Roads	6
2.2.2	Drill Roads and Drill Sites	7
2.2.3	Trenches and Auger Boreholes	10
2.2.4	Monitoring Wells	14
2.2.5	Laydown Area	15
2.2.6	Sanitation and Ancillary Facilities	15
2.2.7	Schedule	15
2.2.8	Reclamation Plan	15
2.2.9	Invasive, Non-Native Species and Noxious Weeds	16
2.2.10	Fire Management and Human Health and Safety	16
2.3	Alternative B – No Action	16
2.4	Alternatives Considered, but Eliminated from Further Analysis	16
3	AFFECTED ENVIRONMENT/ENVIRONMENTAL IMPACTS	17
3.1	Introduction	17
3.2	General Setting	19
3.3	Resources/Concerns Analyzed	20
3.3.1	Cultural Resources	20
3.3.1.1	Affected Environment	20
3.3.1.2	Impact Analysis	21
3.3.2	Migratory Birds	21
3.3.2.1	Affected Environment	21
3.3.2.2	Impact Analysis	22
3.3.3	Special Status Wildlife and Plant Species	22
3.3.3.1	Affected Environment	24
3.3.3.2	Impact Analysis	26
3.3.4	General Fish and Wildlife	30
3.3.4.1	Affected Environment	30
3.3.4.2	Impact Analysis	30
3.3.5	Vegetation Resources	30
3.3.5.1	Affected Environment	30
3.3.5.2	Impact Analysis	31

3.3.6	Soil Resources	32
3.3.6.1	Affected Environment	32
3.3.6.2	Impact Analysis	35
3.3.7	Visual Resource Management.....	36
3.3.7.1	Affected Environment	36
3.3.7.2	Impact Analysis	36
3.3.8	Paleontological Resources.....	38
3.3.8.1	Affected Environment	38
3.3.8.2	Impact Analysis	38
3.3.9	Recreation Resources	38
3.3.9.1	Affected Environment	38
3.3.9.2	Impact Analysis	38
4	CUMULATIVE IMPACTS.....	40
4.1	Introduction	40
4.2	Past Actions	40
4.2.1	Cumulative Impact Analysis for Past Actions.....	41
4.2.1.1	Resource/Concern 1 – Cultural Resources	41
4.2.1.2	Resource/Concern 2 – Wildlife and Special Status Species	42
4.2.1.3	Resource/Concern 3 – Vegetation Resources.....	42
4.2.1.4	Resource/Concern 4 – Soil Resources	42
4.2.1.5	Resource/Concern 5 – Visual Resources.....	42
4.2.1.6	Resource/Concern 6 – Recreation Resources	42
4.3	Current Actions	44
4.3.1	Cumulative Impact Analysis for Current Actions	44
4.3.1.1	Resource/Concern 1 – Cultural Resources	44
4.3.1.2	Resource/Concern 2 – Wildlife and Special Status Species	45
4.3.1.3	Resource/Concern 3 – Vegetation Resources.....	45
4.3.1.4	Resource/Concern 4 – Soil Resources	45
4.3.1.5	Resource/Concern 5 – Visual Resources.....	46
4.3.1.6	Resource/Concern 6 – Recreation Resources	46
4.4	Reasonably Foreseeable Future Actions	46
4.4.1	Cumulative Impact Analysis for Reasonably Foreseeable Future Actions 47	
4.4.1.1	Resource/Concern 1 – Cultural Resources	47
4.4.1.2	Resource/Concern 2 – Wildlife and Special Status Species	47
4.4.1.3	Resource/Concern 3 – Vegetation Resources.....	47
4.4.1.4	Resource/Concern 4 – Soil Resources	48
4.4.1.5	Resource/Concern 5 – Visual Resources.....	48
4.4.1.6	Resource/Concern 6 – Recreation Resources	48
5	TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED 49	
5.1	Introduction	49
5.2	Persons, Groups and Agencies Consulted	49
5.3	Summary of Public Participation	49
5.3.1	Public Scoping.....	49
5.4	List of Preparers	50

5.4.1	BLM Preparers	50
5.4.2	Non-BLM Preparers	50
6	REFERENCES, GLOSSARY AND ACRONYMS	52
6.1	References Cited	52
6.2	Acronyms and Abbreviations	53

List of Tables

Table 1	Authorized and Proposed Surface Disturbance	9
Table 2	Elements Considered for Analysis	17
Table 3	Potential Special Status Wildlife and Plant Species at the Pan Project Site....	22
Table 4	Dominant Soil Associations in the Access Road Area	34
Table 5	Dominant Soil Associations in the Exploration Area	34
Table 6	Previous Mining Exploration Activities	40
Table 7	Previous Mining Exploration Disturbance	41

List of Figures

Figure 1 – Pan Project Location.....	3
Figure 2 – Proposed Access Road	8
Figure 3 – Proposed Roads and Boreholes	11
Figure 4 – Proposed Roads and Boreholes, North Detail	12
Figure 5 – Proposed Roads and Boreholes, South Detail	13
Figure 6 – Greater Sage-Grouse Habitats	25
Figure 7 – Raptors and Golden Eagles	27
Figure 8 – Sage-Grouse Lek Viewshed Analysis	29
Figure 9 – Soil Associations	33
Figure 10 – VRM Classes	37
Figure 11 – Hunt Unit 131	43
Figure 12 – Past Disturbance from Mining Activity in the Pan Project Area	44

List of Attachments

- Attachment 1 – Standard Operating Procedures
- Attachment 2 – Weed Risk Assessment
- Attachment 3 – Spill Control Plan for Fuel Transfer

1 INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze MGC Resources Inc.'s (MGC's) proposal for the second amendment to the Pan Exploration Project (Pan Project) Plan of Operations (POO) submitted to the Bureau of Land Management (BLM) in November 2010. The Pan Project is located on public lands managed by the BLM, Egan Field Office.

The EA is a site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA) and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is determined by the consideration of context and intensity of the impacts (40 CFR 1508.27).

This document is tiered to, and incorporates by reference, the Ely District Record of Decision (ROD) and Approved Resource Management Plan (Ely RMP; BLM 2008a).

1.1 Background

The proposed action for this EA is a site-specific exploration plan that amends and incorporates by reference, the MGC Plan of Operations (POO) NVN-078350 that the BLM approved in 2004 and Reclamation Permit No. 0228 that the Nevada Division of Environmental Protection (NDEP)/Bureau of Mining Regulation and Reclamation (BMRR) issued to Castleworth Ventures in 2004 for the Pan Project. In 2008, MGC purchased the Pan Project from Castleworth Ventures and the permit was transferred to MGC. The purpose of the Pan Project Exploration is to determine whether an economic resource is present. The location of the Pan Project is shown on Figure 1 in the following sections.

T18N R55E Sec: 34

T17N R55E Sec: 3, 10, 15, 22, 23, 25, 26, 27, 35, and 36

T16N R55E Sec: 1 and 2

This EA analyzes the impacts that could result from an exploration program to drill additional exploration holes and five baseline groundwater monitoring wells, construct additional access roads and drill sites, obtain geotechnical and metallurgical samples, and the ancillary facilities necessary to support these activities.

The proposed activities would expand the 2004 POO boundary to include a new access road and would create 75 acres of new surface disturbance on public lands for a total authorized and proposed surface disturbance of 100 acres within 10,756 acres of public lands for which MGC holds claims under the U.S. General Mining Laws. MGC's authorized and proposed mineral activities are regulated by BLM's surface management regulations for hardrock mining and 43 Code of Federal Regulations (CFR) 3809 and Nevada's state reclamation regulation at Nevada Administrative Code (NAC) 519A.

1.2 Purpose of the Proposed Action

The BLM's purpose in evaluating MGC's amended POO to expand the exploration area for the Pan Project, to drill exploration holes and groundwater monitoring wells, and obtain geotechnical and metallurgical samples is to authorize use of the public lands consistent with the Mining Law and the Federal Land Policy and Management Act (FLPMA) of 1976. The purpose of the Proposed Action is to explore for gold resources on unpatented mining claims to fulfill the world need for gold.

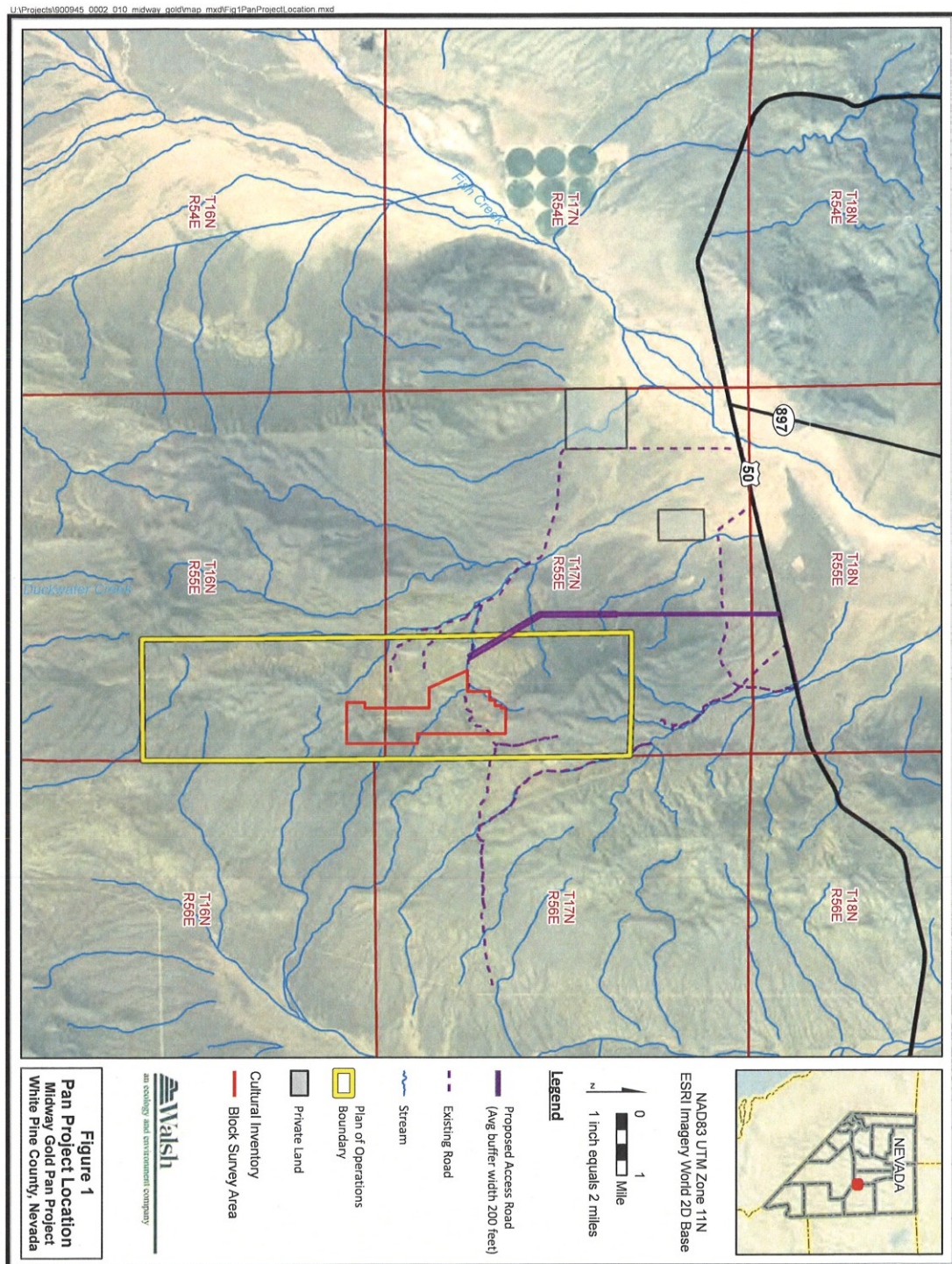


Figure 1 – Pan Project Location

1.3 Need for the Proposed Action

The BLM needs to consider approval of the POO for the MGC Pan Project to respond to its mandate under the FLPMA to manage the public lands for multiple uses. The purpose of the Pan Project is to define the potential mineral resource to determine whether development of the property is economical and feasible. By conducting the Proposed Action, MGC will be able to analyze the data collected and compare results to current mineral values.

1.4 Relationship to Planning

1.4.1 Conformance with BLM Land Use Plan(s)

The proposed action is in conformance with the Goals and Objectives of the Ely RMP (BLM 2008a). The Goals and Objectives within the ROD for Mineral Extraction are listed on pages 92-103 of the ROD. The goal listed on page 92 states, “Allow development of solid leasable and locatable minerals in a manner to prevent unnecessary or undue degradation” [to the public lands]. The objective and minerals decision (MIN-14) listed on page 100 states, “Allow locatable mineral development on approximately 9.9 million acres of federal mineral estate, subject to the prevention of unnecessary or undue degradation of the public lands.”

In addition, review of resources and concerns that would possibly be impacted by the project was conducted by the BLM, and it was determined by the BLM that approval of the Proposed Action is in conformance with the Ely RMP (BLM 2008a).

1.5 Relationship to Statutes, Regulations, or other Plans

This action is consistent with federal, state, and local regulations; policies; and programs to the maximum extent possible. This includes federal policies; the Energy Policy Act of 2005; FLPMA; National Historic Preservation Act (NHPA); Archaeological Resources Protection Act (ARPA); Archeological and Historic Preservation Act of 1974 (AHPA); 36 CFR 65 National Historic Landmark (NHL) Program; 36 CFR 68 Secretary of the Interior’s Standards for the Treatment of Historic Properties, Native American Graves Protection and Repatriation Act (NAGPRA); Endangered Species Act (ESA); Clean Water Act (CWA); and state plans and policies for the management of mineral and water resources, conservation of sensitive wildlife species, and cultural resource protection.

A number of supplemental authorities contain procedural requirements that may pertain to the Pan Project. A number of applicable BLM plans, policies, and regulations are incorporated into this EA by reference. All of the plans, policies, and regulations will be included in the Administrative Record (AR) for this project and made available upon request.

1.6 Scoping and Issues

A BLM interdisciplinary (ID) team analyzed the potential consequences of the proposed action during internal scoping held on December 22, 2010. The following resources are analyzed and addressed in Chapter 3 of this EA as a result of scoping:

- Cultural Resources – Carbonari Sites and the Lincoln Highway;
- Migratory Birds – Disruption of nests;
- Fish and Wildlife – Disruption of habitat;

- Special Status Species – Disruption of greater sage-grouse habitat;
- Vegetative Resources – Removal of vegetation;
- Soil Resources – Removal of soil and soil erosion;
- Paleontological Resources – Removal of fossils;
- Visual Resource Management (VRM) – Views of the area; and
- Recreation Resources – Disruption of recreation access.

Other concerns identified during previous analysis of resources included potential disruption of raptor and migratory bird nests in the spring of each year, noxious weeds, new road proliferation, and habitat fragmentation.

1.7 Public Scoping

As required by NEPA, the BLM solicited public comments on the Proposed Action. The BLM used comments received during the scoping period to determine:

- Important issues to be addressed;
- Possible data needs and sources;
- Alternatives to be assessed; and
- Potential environmental and socioeconomic effects of the alternatives.

The public scoping period began on March 11, 2011 and ended on March 25, 2011.

Information concerning the Pan Project was available on the BLM website:

http://www.blm.gov/nv/st/en/fo/ely_field_office/blm_programs/planning/eydo_nepa_documentation.html

No public scoping comments were received by the BLM.

2 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction

MGC's Proposed Action and the No Action alternative are presented below. The potential environmental impacts or consequences resulting from the implementation of the Proposed Action and the No Action alternative are analyzed in Chapter 3 for each of the identified issues.

2.2 Proposed Action

MGC proposes to conduct additional mineral exploration activities that would include drilling additional exploration holes and baseline groundwater monitoring wells, constructing additional access roads and drill sites, obtaining geotechnical and metallurgical samples, and providing the facilities necessary to support these activities. The proposed activities would expand the 2004 POO boundary to include a new access road and drill sites, creating 75 acres of new surface disturbance on public lands for a total authorized and proposed surface disturbance of 100 acres within 10,756 acres of public lands. This EA will analyze the additional disturbance of 75 acres. The location of the Pan Project is shown on Figure 1. The following description of the Proposed Action was excerpted from the MGC POO (MGC 2010).

The Proposed Action would be completed in two phases. Phase I would include a new access road and 22 acres of drill roads, drill sites, soil pits and auger holes, and a laydown area. Phase II would include 32.8 acres of similar disturbance. The Standard Operating Procedures in Attachment 1 will also be followed as part of the proposed action.

A Class III cultural inventory block survey would be conducted before starting ground-disturbing activities associated with this plan. All proposed ground disturbance associated with Phase 1 and 2 of this plan, excluding the access road, would remain within the block survey. An approximate block survey boundary is shown in Figure 1. A Class III cultural inventory would be conducted specifically for the access road as explained in Section 2.2.1.

2.2.1 Access Roads

The existing access road to the site is a pre-existing four-wheel drive road ("Midway Segment"), which has not been fully road-based or otherwise improved for all-weather travel. There is a 1.5 mile section of Lincoln Highway, which commences on the west at the intersection of the Midway Segment and intersects with County Road 1088 (south to Black Shade Well) (the "western segment"). This 1.5 mile segment of the Lincoln Highway has been determined not eligible to the National Register of Historic Places. The remaining segment of 1913 Lincoln Highway that traverses from County Road 1088, eastward, (the "center segment") has not yet been evaluated for eligibility to the National Register of Historic Places. Until such time that the eligibility determination is made, the Lincoln Highway will be considered unevaluated. All drilling and associated ground disturbing activities will not occur within 100 feet of centerline. There will also be no graveling or blading of the unevaluated portion of the Lincoln Highway.

The location of this pre-existing road is within the boundary of an active greater sage-grouse (*Centrocercus urophasianus*) lek, the East Black Point Lek, as shown in Figure 2. In order to eliminate impacts to the lek, to provide access to the site in all weather

conditions, and minimize fugitive dust, a new access road is proposed. The location of the proposed new access road is shown on Figure 2.

The access road would be constructed according to BLM Manual 9113 – Roads (BLM 1985) standards with an average 16-foot wide running surface and a total average road disturbance width of 32 feet. The new access road would have a total length of 5.26 miles and a new disturbance area of approximately 20 acres. The road would be developed within a 200- to 400-foot wide corridor to allow for field micrositeing to accommodate site-specific conditions.

The alignment of the access road would be located within the access road corridor shown on Figure 2. This alignment maintains grades of less than 3 percent and is located to the degree possible out of sight of the active leks behind ridges and/or below the leks. By maintaining lower grades, noise will be kept to a minimum by avoiding the need for compression braking and steep climbs. In addition, noise would be blocked by the ridges. Snow maintenance would also be eased by the low grade. An increased safety factor would be associated with this road alignment due to its lower grades, fewer turns, and lowered maintenance requirements over the existing access road.

A Class III cultural inventory would be conducted along the length of the proposed access road corridor prior to any land disturbing activities. Any cultural resources will be avoided. If avoidance is not possible, mitigation consultation will be conducted between the BLM and the Nevada State Historic Preservation Office.

This project occurs in the 18-Mile House Pasture of the Newark Grazing Allotment. Two grazing permits for this area allow for both cattle and sheep grazing from November 1 to April 15.

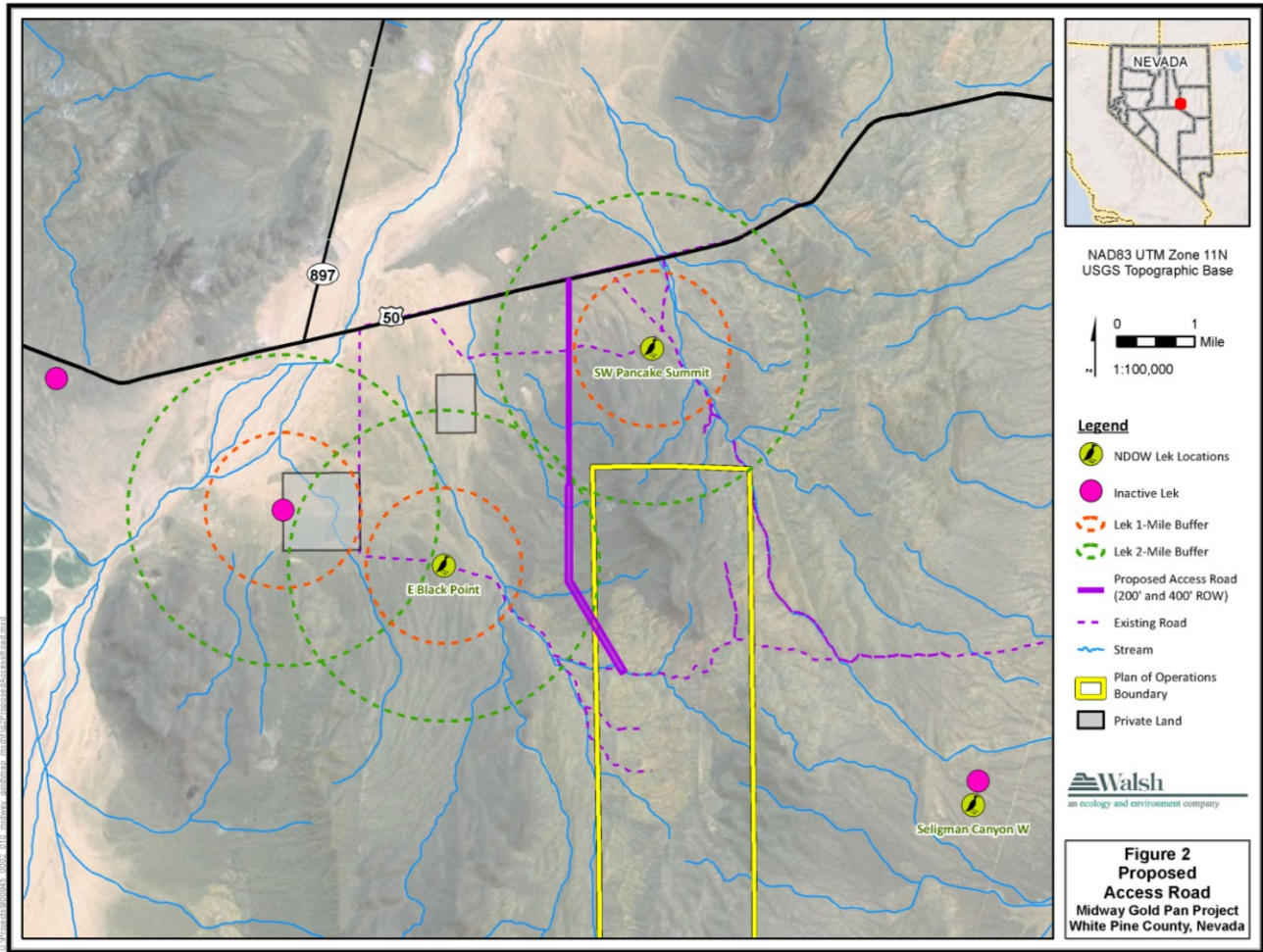
The proposed access road crosses the Newark Valley Highway 50 right-of-way (ROW) Fence (554588) and would require a cattle guard to prevent cattle drift onto the highway. MGC would be responsible for maintaining the access road and cattle guard, including cleaning it out as needed. The road would be reclaimed and the fence returned to serviceable condition when no longer needed.

2.2.2 Drill Roads and Drill Sites

Drilling would be conducted using truck-, track-, or buggy-mounted reverse circulation drill rigs and core rigs. Whenever possible, a buggy-mounted rig would be used to access sites without road construction. Existing roads would be used to the extent possible. Drill holes may be vertical or angled and would average approximately 600 feet in depth. Drill holes would be surveyed and plugged as an operational procedure immediately after completion of drilling in accordance with NAC Chapters 534.421 and 534.425.

Exploration roads and drill pads, which require earthmoving, would be located and constructed using standard construction practices for temporary mineral exploration roads to minimize surface disturbance, erosion, and visual contrast, and to facilitate reclamation. Road construction would be implemented using a Cat D8 or equivalent. The proposed exploration roads and spurs would be bladed to an average width of 15 feet

Figure 2 – Proposed Access Road



including side cast material, with water bars installed as needed. Where suitable as a growth media, surficial soils and alluvial material would be salvaged and stored separately from other bladed material in shallow berms on the uphill side of the road. Every effort would be made to keep road grades at 10 percent or less. Steeper grades may be necessary for short pitches.

Any new ground-disturbing activity would require Section 106 cultural compliance to include a Class III inventory. Previous ground disturbance does not necessarily indicate previous cultural compliance, and all proposed drill sites should be reviewed with the agency or representative archeologist.

Balanced cut-and-fill construction would be used to the extent possible to minimize the exposed cut slopes and the volume of fill material. Road construction within drainages would be avoided where possible. When drainages must be crossed by a road, best management practices (BMPs) would be followed to minimize the surface disturbance and erosion potential. Blasting would not be necessary to construct roadbeds. Rock outcrops and areas of shallow soils on bedrock, where present, would be avoided whenever possible. However, if rock outcrops would be disturbed, a paleontological inventory would be conducted prior to disturbance. Routine road maintenance may be required and would consist of smoothing ruts, filling holes with fill material, grading, and re-establishing water bars when necessary.

The total disturbance and associated acreage is listed in Table 1 below.

Table 1 Authorized and Proposed Surface Disturbance				
Disturbance Activity	2004 Plan Authorized Surface Disturbance (acres)	Phase I 2010 Plan Amendment Proposed Surface Disturbance (acres)	Phase II 2010 Plan Amendment Proposed Surface Disturbance (acres)	Total Surface Disturbance
Access Roads	1.10	20.0	0.0	21.1
Drill Roads	12.5	8.8	16.2	37.5
Drill Sites (pads and sumps)	11.4	11.2	13.2	35.8
Geotechnical soil pits and augers	0.0	1.0	1.0	2.0
Trenches and bulk sample sites	0.0	1.0	1.0	2.0
Groundwater monitoring wells	0.0	0.0	1.4	1.4
Laydown area	0.0	0.2	0.0	0.2
Total	25.0	42.2	32.8	100.0

The surface area impacted by each drill site would be approximately 30 feet by 70 feet, totaling 2,100 square feet for the pad and sump. Sumps would be constructed to the least

depth possible given each particular site to allow for maximum evaporation. Depending on the site, pad construction may or may not be required. A sump would be used at each drill site to contain drill cuttings and control drilling fluids. If trenches were dug at the site, they would be partially backfilled and used as a sump, to minimize surface disturbance. A drill pad and sump may be used for more than one drill hole. Sumps would vary in depth from 2 to 5 feet deep, depending on pad size, available area at each drill site, and time of year. Shallower sumps would be constructed during winter months to allow for increased evaporation. Where practical, based on the configuration of the drill site and the adjacent topography, the sumps would be dug in the drill pad as close as possible to the base of the cut bank. If this area is solid bedrock, the sump would be moved out to where it can be dug without requiring blasting. At least one side of the sump would be sloped for easy access/egress.

Excavating sumps in the fill slope side of the drill site would be avoided where alternative practical sump sites exist. If the sump area is loose rock and not capable of holding water long enough to mix drilling muds, a plastic liner may be used to prevent water leakage from the sump. Standard, non-toxic, drilling muds and additives would be used.

Sumps would be constructed with a ramp for wildlife egress, would be bermed to prevent wildlife entry, and would remain bermed until backfilled. Berms would be constructed to direct stormwater away from the sump, and unmixed drilling fluids would not be left exposed to the environment after completion of the hole. If the drilling fluids that remain in sumps pose a hazard to wildlife, MGC would work with the BLM to reduce the wildlife hazard by either removing the fluid or backfilling the sump.

Figures 3, 4, and 5 show the locations of the Phase I drill roads and drill sites planned to date, based on MGC's current understanding of the Pan mineral deposit. Phase I would create 42.2 acres of surface disturbance. Phase II drill sites and access roads to those drill sites would be located based on the Phase I drilling results. The combined Phase I and Phase II surface disturbance would total 75 acres.

Because this is an exploration project, exact locations for each of the exploration roads and drill sites in Phase II are not known at this time. The amount of disturbance for the specific exploration activities shown in Table 1 may need to be modified based on information obtained from previous drilling activities. Modifications would be discussed with BLM prior to implementation and all appropriate surveys and documentation would be completed prior to ground-disturbing activities. Major modifications could require additional NEPA analysis.

2.2.3 Trenches and Auger Boreholes

Trenches would be excavated to obtain surface soil samples, make geotechnical measurements, and to obtain baseline soil information. This information will be used for a baseline characterization of the area. To the extent practicable, the trenches would be located within previously established roadways. Precise locations for the trenches are not yet known and would be based on the results of the drilling program.

Trenches would be developed by side-casting and segregating all available topsoil, digging through surface soils to bedrock (10 to 15 feet deep, depending on the range of

Figure 3 – Proposed Roads and Boreholes

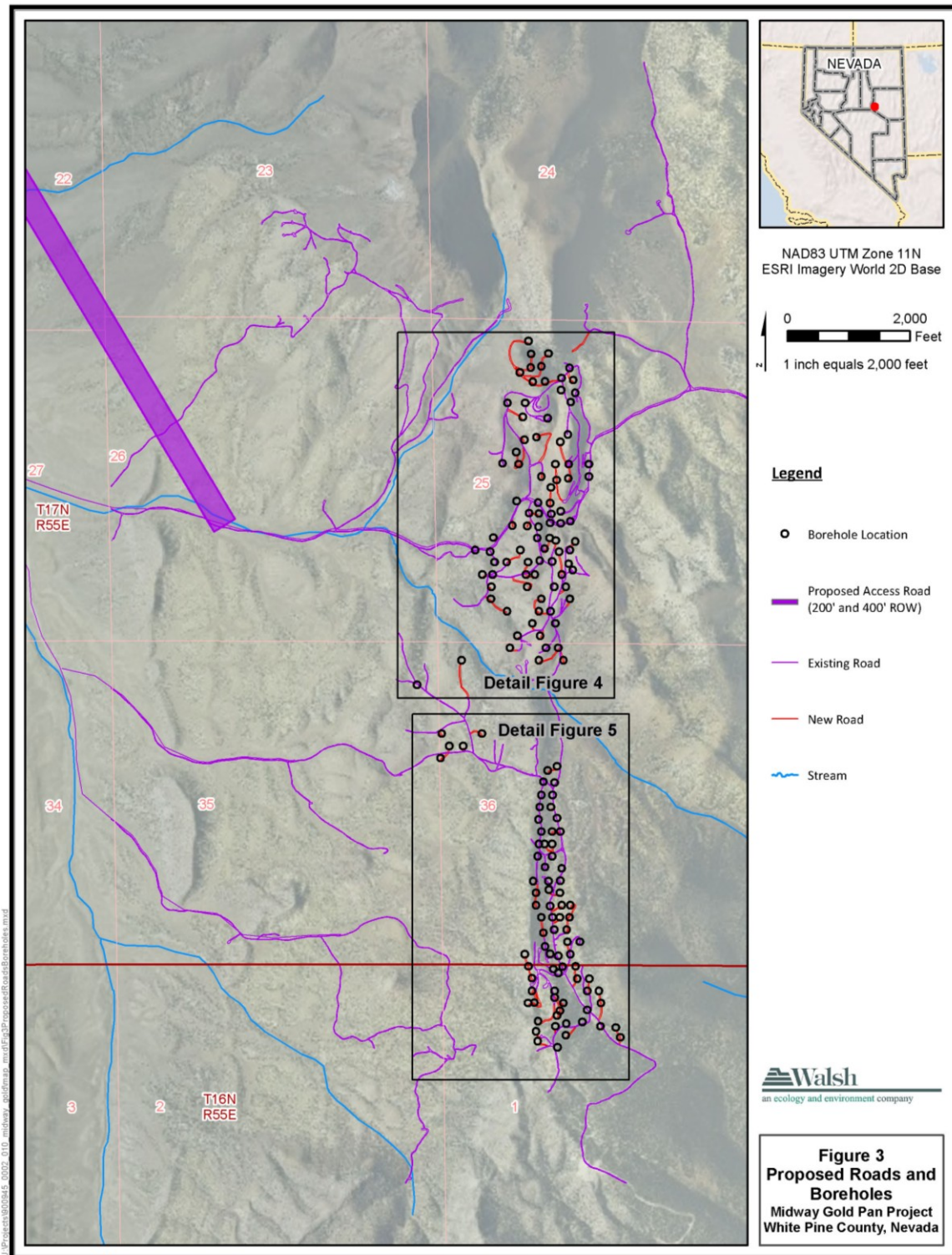


Figure 4 – Proposed Roads and Boreholes, North Detail

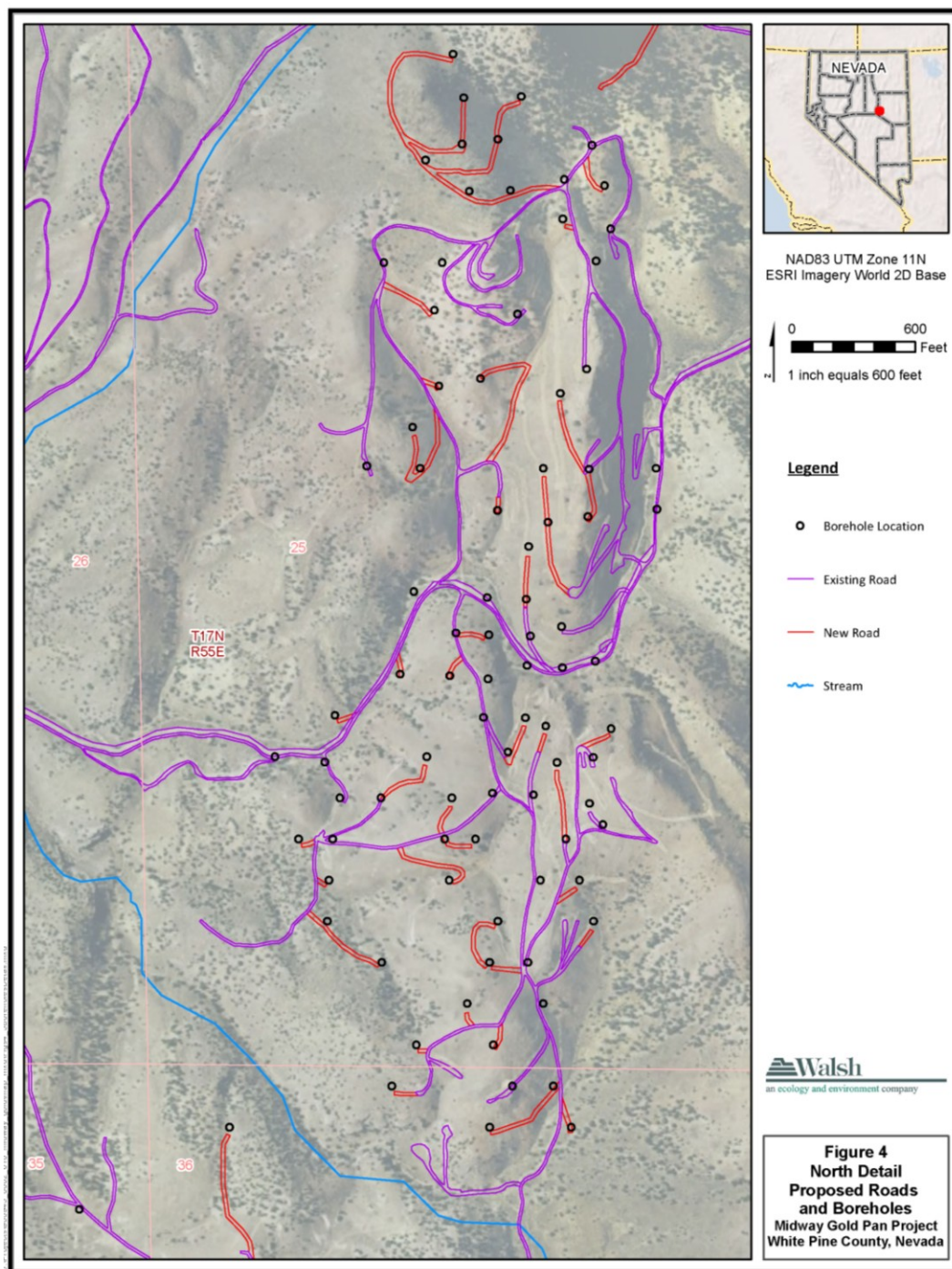
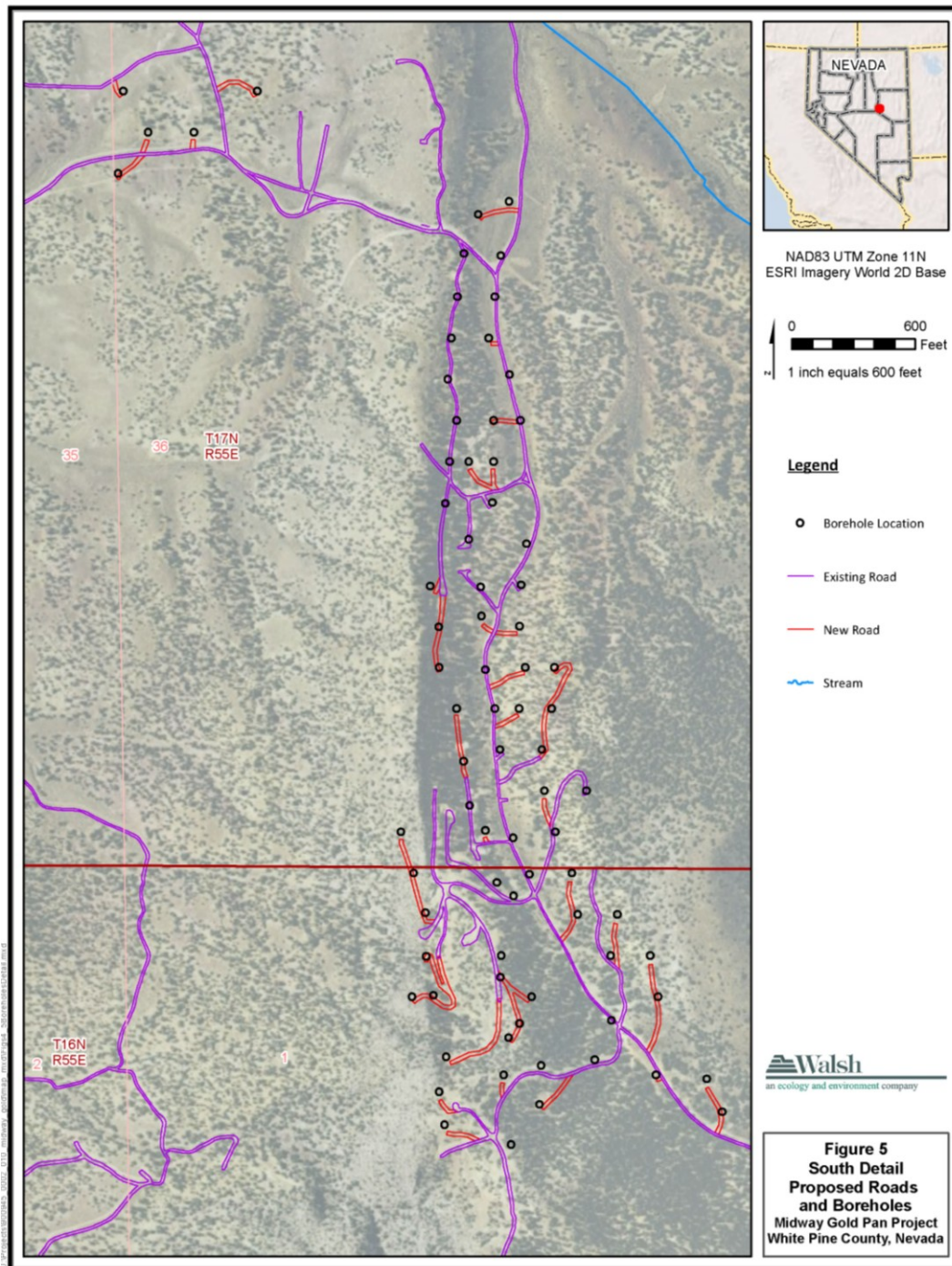


Figure 5 – Proposed Roads and Boreholes, South Detail



the backhoe), or to refusal due to the presence of bedrock. Deeper trenches would be benched for safe access. All Occupational Safety and Health Administration (OSHA) standards would be maintained in reference to excavating, trenching, and confined space requirements.

If a trench is more than 5 feet deep, one bench is required, if it is more than 10 feet deep, two benches are required. Depending on depth and required benches, the trenches would vary from 2 to 6 feet wide. The total disturbance for the pits may be up to 20 feet by 30 feet, totaling 600 square feet, if dug to full depth. A geotechnical specialist and/or a soil scientist may be present while the trench is dug to gather soils information while the hole is open.

When completed, the trenches would be backfilled, the area re-contoured to near original contour, and the topsoil spread back over the area. The area would then be seeded with the reclamation seed mix previously approved for the area. Where possible, trenches would be located at drill sites and would be utilized afterwards as a sump for the drill hole to reduce redundant impacts. If this is the case, the trenches would be backfilled to a maximum depth of 5 feet, and the sides sloped for egress prior to use as a sump.

Auger drill holes would be drilled with gas-powered, hand-operated or rubber tracked, all terrain vehicle (ATV) mounted augers. The auger holes would be 4-inch diameter holes drilled to a maximum depth of 50 feet or to bedrock, whichever is shallower. Pickups or ATVs would be used to transport the hand auger and crew to the location. Pickups would be used when the site is located on, or adjacent to, an existing roadway. When the sites are in undisturbed areas, ATVs would be used and no more than three trips to the site would be made. Support and sampling personnel would travel to the location on foot from the nearest established road or on the initial trip of the ATV. The hole would be augured, the samples collected, and information logged. After the sampling and logging are completed, the hole would be backfilled by hand before leaving the site.

As shown in Table 1, the auger holes and trench sites would disturb approximately 3.0 acres. The actual locations would be determined on the basis of ongoing drilling and may need to be modified based on the drilling results. The as-built locations for the trenches and auger holes would be included in the annual report provided to the BLM and NDEP. A Class III cultural inventory will be conducted before starting ground-disturbing activities.

2.2.4 Monitoring Wells

Five groundwater monitoring wells would be drilled and installed by a licensed water well driller to provide baseline groundwater depth and quality information. Prior to drilling the monitoring wells, MGC would obtain the appropriate monitoring well waivers from the Nevada Division of Water Resources (NDWR). The drill pad size is not known at this time but the estimated total disturbance is 1.4 acres.

The monitoring wells would be monitored on a quarterly basis for a minimum of four years. If no water is present, this would be noted. When no longer needed for monitoring purposes, they would be plugged and abandoned according to state rules and the area reclaimed by grading, scarifying, and seeding. A Class III cultural inventory will be conducted before conducting ground-disturbing activities.

2.2.5 Laydown Area

One laydown area would be used for temporary storage of drill pipe, drilling materials and supplies, drill cuttings, and equipment. The laydown area would be bladed and graveled. Hazardous materials (fuel and lubricants) would not be stored at the laydown area. Temporary water storage bladders, which may be used to minimize the number of water truck trips, may be stored at the laydown area. An estimate of 0.2 acres of disturbance area has been included for the laydown area. The laydown area would be reclaimed when no longer needed. A Class III cultural inventory will be conducted before conducting ground-disturbing activities.

2.2.6 Sanitation and Ancillary Facilities

Up to two portable toilets would be located on-site while drilling activities are on-going. These toilets would be supplied and serviced by a local supplier and would be removed at the end of the exploration project. There would be no dumping of black water, sewage, or litter. MGC would transport all waste and litter to an approved sanitary landfill. The portable toilets would be placed on previously disturbed sites. No other ancillary facilities would be required for the project.

2.2.7 Schedule

MGC would commence the activities included in this plan amendment as soon as the BLM and NDEP/BMRR approve the 2010 Amendment and as site conditions allow. Drill sites and roads would be reclaimed when no longer needed to support project activities.

2.2.8 Reclamation Plan

Reclamation activities will be the same as those approved in the 2004 POO. The 2010 Amendment does not modify the reclamation activities authorized in the 2004 POO for the mineral exploration activities. Reclamation activities would be conducted concurrently with mineral exploration activities when disturbance is no longer needed. Concurrent reclamation would take place to the degree possible by backfilling sumps, re-contouring, scarifying, and seeding drill sites when the sumps become dry enough to backfill without causing a spill of drilling fluids.

Reclamation would begin when exploration areas are considered inactive, without potential, or are completed, at the earliest practicable time. Reclamation activities would be coordinated with BLM and NDEP/BMRR to meet regulatory requirements. The proposed reclamation is expected to take up to one year from the time of commencement of final reclamation and would be initiated within one year after the completion of exploration activities. Soils capable of serving as growth media and soil organic matter would be salvaged and stockpiled to the fill slope. When reclamation occurs, recontouring would be completed at the earliest opportunity following completion of the exploration work, seeding would be conducted in the following 3rd or 4th quarter of each year. Revegetation is anticipated to take three years after the time of seeding to achieve success. Temporary fencing may be needed to exclude livestock from reclamation areas. Monitoring would be conducted for three consecutive years in the 3rd quarter of the year.

Any new materials used for the purpose of reclamation that originate from a new ground disturbance will require Class III cultural inventory.

2.2.9 Invasive, Non-Native Species and Noxious Weeds

A Weed Risk Assessment was completed for this project on May 6, 2011 and is included as Attachment 2. The measures listed in the Weed Risk Assessment, along with BLM Ely BMPs would be followed throughout the life of the project to minimize the effects of weeds.

2.2.10 Fire Management and Human Health and Safety

Within the area of operation, every effort would be made to prevent, control, or suppress any fire. MGC and its contractors would follow all federal, state, and local laws and regulations during all phases of construction. All OSHA standards would be maintained in reference to excavating, trenching, and confined space requirements.

Hazardous materials used at the site would include diesel fuel, gasoline, and lubricating grease. Approximately 625 gallons of diesel fuel would be stored in fuel delivery systems on vehicles and drill rigs. Approximately 125 gallons of gasoline would be stored in fuel delivery systems for light vehicles. Approximately 125 pounds of lubricating grease would be stored on the drill rigs or transported by drill trucks. All containers of hazardous substances would be labeled and handled in accordance with Nevada Department of Transportation (NDOT) and the U.S. Mining Safety and Health Administration (MSHA) regulations.

In the event hazardous or regulated materials, such as diesel fuel, were spilled, measures would be taken to control the spill and the BLM, NDEP, and/or the Emergency Response Hotline would be notified, as required. If any oil, hazardous material, or chemicals are spilled during operations, they would be cleaned up as soon as MGC becomes aware that a spill has occurred. After clean up, the oil, hazardous material, or chemicals and any contaminated material would be removed from the site and disposed of at an approved disposal facility. A spill control plan for fuels is included as Attachment 3.

Self-contained, portable, chemical toilets supplied and serviced by a contractor would be used for human waste. The human waste and toilet chemicals would not be buried on site.

2.3 Alternative B – No Action

Under the No Action alternative, this site-specific exploration plan would not be approved. Only completion of the previously authorized notice disturbance would occur. Other site-specific drill plans within the Plan boundaries could be analyzed and considered in the future under additional site-specific plans submitted by MGC or other exploration companies.

2.4 Alternatives Considered, but Eliminated from Further Analysis

No other alternatives are needed to address unresolved conflicts concerning alternative uses of available resources.

3 AFFECTED ENVIRONMENT/ENVIRONMENTAL IMPACTS

3.1 Introduction

This chapter presents the existing environment (i.e., the physical, biological, and cultural values and resources) of the impact area, the issues analyzed, the impacts to the analyzed resources, and mitigation that could be applied that would reduce those impacts.

Application of the mitigation measures to the Proposed Action would be carried forward into the Decision Record (DR) as a condition of approval of the proposal.

Potential impacts to the following resources/concerns were evaluated to determine whether detailed analysis was required. Consideration of some of these items is to ensure compliance with laws, statutes, or Executive Orders (EOs) that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general and to the BLM Ely District in particular.

Table 2 documents the issues evaluation or rationale for dismissal from analysis:

Table 2 Elements Considered for Analysis		
Resource/Concern	Issue(s) (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality*	N	There could be a short-term increase in particulate matter (dust) resulting from the Proposed Action. The affected area is not within an area of non-attainment or areas where total suspended particulates or other criteria pollutants exceed Nevada air quality standards. Detailed analysis is not required.
Area of Critical Environmental Concern (ACEC)*	N	Resource not present.
Cultural Resources*	Y	Analyzed in the EA.
Forest Health*	N	No unique woodland or forest communities are present within the project boundary.
Rangeland Health*	N	Because of the relative size of this project in the overall grazing pasture and required reclamation, this exploration project is not anticipated to have direct, indirect, or cumulative impacts to Rangeland Health (also see Vegetation Section).
Migratory Birds*	Y	Analyzed in the EA.
Grazing Uses/Forage	N	Because of the relative size of this project in the overall grazing pasture and required reclamation, this exploration project is not anticipated to have direct, indirect, or cumulative impacts to Grazing Uses/Forage.
Native American Religious and other Concerns*	N	The BLM Ely District Office sent formal consultation letters, dated December 8, 2010, to Native American tribes and tribal councils informing them of the proposed

Table 2 Elements Considered for Analysis

Resource/Concern	Issue(s) (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		project and EA and inviting comments and concerns. The Duckwater Shoshone Tribe has requested a field visit to the project area. No further analysis is required.
USFWS Listed or proposed for listing Threatened or Endangered Species or critical habitat*	N	Resource not present.
Wastes, Hazardous or Solid*	N	Mitigation actions are part of the Proposed Action. No further analysis required.
Water Quality, Surface/Ground*	N	3.37 acres of non-jurisdictional waters were identified in the project area. All were ephemeral, isolated drainages (JBR 2010a). It cannot be predicted whether or when any of these drainages may have water. Therefore no further analysis is required.
Environmental Justice*	N	No minority or low-income groups would be disproportionately affected by health or environmental effects by the proposed action.
Floodplains*	N	Resource not present.
Prime and unique farmlands*	N	Resource not present.
Wetlands/Riparian Zones*	N	Resource not present (JBR 2010a).
Non-native Invasive and Noxious Species*	N	<p>No noxious weeds are documented within the Project Area. Knapweed, hoary cress, cheatgrass, and halogeton are found along roads leading to the project area. The project may also introduce weeds not found near the project area. The design features of the Proposed Action include preventive measures during implementation and treating areas where weeds establish that would decrease impacts by weeds.</p> <p>Due to processes outlined as design features in the Proposed Action (page 4), no direct, indirect or cumulative effects are anticipated. No additional analysis is needed.</p>
Special Status animal species, other than those listed or proposed by the FWS as Threatened or Endangered.	Y	Carried through the EA because greater sage-grouse, bats, and migratory birds are present. Pygmy rabbit is not present in the project area (JBR 200b).
Special Status plant species, other than those listed or proposed by the USFWS as Threatened or Endangered.	N	Resource not currently known to be present.
Wilderness/WSA*	N	Resource not present.

Table 2 Elements Considered for Analysis

Resource/Concern	Issue(s) (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Wild Horses	N	The project area is located within the Pancake Wild Horse Herd Management Area (HMA). Exploration activities may require temporary displacement of wild horses, but would have a negligible effect over the long-term.
Fish and Wildlife	Y	Analyzed in the EA.
Soil Resources	Y	Analyzed in the EA.
Visual Resources Management	Y	Analyzed in the EA.
Lands and Realty	N	No land actions anticipated.
Recreation	Y	Analyzed in the EA.
Paleontological Resources	Y	Analyzed in the EA.
Human Health and Safety*	N	BLM health and safety stipulations would be used to prevent impacts. These are described in the Proposed Action. No further analysis is required.
Water Resources (Water Rights)	N	No water rights would be impacted by the proposed project.
Mineral Resources	N	This project would not affect future mining operations because of the small amount of ore being removed during exploration.
Vegetative Resources	Y	Analyzed in the EA.
Heritage Special Designations (Historic Trails)	N	Resource not present. This segment of the Lincoln Highway is not officially designated as a National Scenic and Historic Trail.
Wild and Scenic Rivers	N	Resource not present.
Fire Management	N	Fire management mitigation measures will be used. These are described in the Proposed Action. No further analysis is required.
Public Safety	N	Public safety mitigation measures will be used. These are described in the Proposed Action. No further analysis is required.

*Nevada Supplemental Authority

3.2 General Setting

The Pan Project is located approximately 50 miles west of Ely, Nevada in White Pine County. The Pan Project consists of about 10,765 acres of public lands administered by the BLM, Egan Field Office, Ely District. The Pan Project is accessed via U.S. Highway 50 as shown on Figure 2. The only transportation routes within the Project Area are county roads and unimproved dirt roads. Road use is light, consisting of local ranching,

recreation, and mineral exploration traffic. Elevations in the project area range from approximately 6,400 to 7,300 feet above mean sea level (AMSL). Vegetation is characteristic of the Basin and Range, consisting of sagebrush and pinyon and juniper communities.

The Pan Project has a high desert climate characterized by clear sunny days and low humidity with wide temperature swings every day. Summertime temperatures are generally in the 80 to 90 degree (Fahrenheit) range during the day and fall to 45 degrees at night. Winter temperatures range from 30 to 50 degrees during the day, and fall below 0 degrees about 10 to 20 days per year.

3.3 Resources/Concerns Analyzed

3.3.1 Cultural Resources

Section 106 of the NHPA requires Federal agencies to take into account the effects that Federal undertakings may have on historic properties. The implementing regulations of Section 106, found at 36 CFR 800, outline the process Federal agencies must follow in order to comply with the law. The BLM signed a National Programmatic Agreement in 1997 with the National Council of State Historic Preservation Officers (NCSHPO) and the Advisory Council, which streamlined the consultation process between those agencies. A State Protocol Agreement between the BLM and the Nevada State Historic Preservation Office (October 2009) further streamlined the consultation process.

The policy of the BLM is to avoid historic properties as a first choice (BLM Manual 8140.C; BLM 2004a). Standard Measures from the 2009 State Protocol Agreement will be utilized for the avoidance of properties. If avoidance is not feasible, mitigation will become necessary. The BLM in consultation with the State Historic Preservation Officer (SHPO) will determine the necessary type of mitigation to be implemented. Mitigation most often consists of data recovery through excavation, but may also occur as project redesign, extensive historic research and documentation, or other methods as determined through a data recovery treatment plan. If a historic property is inadvertently discovered all “activities with the undertaking within 100 meters of the discovery are halted and the discovery is appropriately protected, until the BLM Authorized Officer issues a Notice to Proceed (NTP)” (pg 17 State Protocol). If an adverse effect is found, BLM will initiate necessary procedures.

3.3.1.1 Affected Environment

Cultural and historic resources that occur in the project area are primarily Carbonari sites and a section of road of the Lincoln Highway used in 1913. There are five non-eligible historic trash dumps as well as other isolated historic artifacts, eight eligible prehistoric rock rings, and seven other prehistoric sites that are not eligible to the National Register of Historic Places.

Pan Project Carbonari sites may have supplied, along with other Carbonari sites in the Eureka area, the Historic Eureka Mining District and were used to produce charcoal for smelters. Kilns have been found up to 50 miles away from Eureka. In the project area, pinyon were cut down and used in charcoal production kilns.

Carbonari sites are scattered across the landscape and can include habitations, ovens, shelters, surface charcoal production kilns, wood cutting areas, and other associated

areas. Sites have been located and studied as part of other exploration projects and within the 2004 Pan Project area (BLM 2004b).

The Lincoln Highway was America's first transcontinental highway, starting in New York City and ending in San Francisco. Before the Lincoln Highway route was finalized there were smaller segments and alternate routes. The 1913 route of the Lincoln Highway was in the project area, while the 1924 the route is the current Highway 50.

The 1913 route of the Lincoln Highway that runs through this project area may be broken down into three segments:

1. The western segment used as access to the area (approximately 4 miles). This segment was evaluated for inclusion on the National Register of Historic Places (NRHP). The Nevada State Historic Preservation Officer (SHPO) had determined that this segment of the Lincoln is not eligible (NSHPO 2011).
2. The center segment which runs through the exploration area (approximately 2.5 miles).
3. The eastern segment which falls outside the project area (approximately 4 miles) to the White Pine County Road and will not be further evaluated in this EA.

3.3.1.2 Impact Analysis

The Carbonari complex sites (structures, charcoal production kilns, sleds, associated debris, etc.) would be avoided. The "center segment" of the 1913 Lincoln Highway traverses the project area within the exploration area and is considered an unevaluated resource. A Class III cultural survey would be conducted prior to project activities, and all potentially eligible sites would be avoided. Previously disturbed bore hole locations cannot be re-disturbed without documentation of a site-specific cultural survey. If previously unidentified cultural resources are inadvertently found during project activities, work would be stopped within 100 feet of the find, the BLM Authorized Officer would be contacted, and the resources would be left intact pending the BLM Authorized Officer evaluation. MGC would be responsible for data recovery regarding the unanticipated discovery and will coordinate with the BLM and SHPO in the treatment plan process.

3.3.2 Migratory Birds

In 2001, President Clinton signed EO 13186 placing emphasis on the conservation and management of migratory birds. Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 and EO 13186 addresses the responsibilities of federal agencies to protect migratory birds by taking actions to implement the MBTA. BLM management for migratory bird species on BLM-administered lands is based on Instructional Memorandum (IM) No. 2008-050 (BLM 2008b). Based on this IM, migratory bird species of conservation concern include "species of conservation concern."

3.3.2.1 Affected Environment

In 2010, JBR Environmental Consultants (JBR 2010b) conducted a wildlife survey in the project area. The results of the survey are summarized below. Migratory birds detected during surveys in pinyon-juniper woodland habitats included the black-throated sparrow (*Amphispiza bilineata*), olive-sided flycatcher (*Contopus cooperi*), and American crow

(*Corvus brachyrhynchus*). In sagebrush habitats, several migratory birds were detected including western meadowlark (*Sturnella neglecta*), horned lark (*Eremophila alpestris*), sage sparrow (*Amphispiza belli*), and chipping sparrow (*Spizella passerina*). Other obligate sagebrush and cold desert bird species are possible in the study area.

Several raptor species were detected during the study in the agriculture habitat outside of the project area, including rough-legged hawk (*Buteo lagopus*) and great horned owl (*Bubo virginianus*). A great horned owl nest was observed on a power pole approximately 3.5 miles from the project area. Appropriate habitat for other raptor species exists in the study area.

3.3.2.2 Impact Analysis

Migratory birds could be attracted to drilling mud sumps. Sumps are expected to dry quickly, but in the cases that they do not and drilling fluids that remain pose a hazard to wildlife, MGC would work with the BLM to reduce the wildlife hazard by either removing the fluid or backfilling the sump.

All active raptor nests (including owls) would be avoided by one half mile. Prior to any ground-disturbing activities, areas would be surveyed by a qualified biologist between April 15th and July 15th for migratory birds. Ground-disturbing activities must then be conducted within one week post survey, or another pre-disturbance survey would be conducted. If an active nest is found, a buffer of either 100 feet, 200 feet, or one half miles, depending on the species, would be determined upon consultation with a BLM and/or NDOW biologist. This buffer would be avoided until after the young have fledged, or the nest becomes inactive.

3.3.3 Special Status Wildlife and Plant Species

The term “special status” includes those listed by the BLM as sensitive species and those listed by the USFWS as candidate, Threatened, Endangered or Proposed under the ESA. JBR (2010b, 2010c) consulted with the USFWS, the Nevada Department of Wildlife (NDOW) and the Nevada Natural Heritage Program (NNHP) to identify any special status species that may occur in the project area. In addition, NNHP and NatureServe Explorer databases (NNHP 2010; NatureServe 2010) were searched for special status wildlife and plant species with potential habitat in the project area (JBR 2010b, 2010c). Special status wildlife and plant species potentially present in the project area are listed in Table 3.

Table 3 Potential Special Status Wildlife and Plant Species at the Pan Project Site				
Common Name	Scientific Name	BLM Sensitive Species	USFWS ESA Candidate	NNHP Status
Mammals				
Western small-footed myotis	<i>Myotis ciliolabrum</i>	√		Sensitive
Long-legged myotis	<i>Myotis volans</i>	√		Watch List

Table 3 Potential Special Status Wildlife and Plant Species at the Pan Project Site				
Common Name	Scientific Name	BLM Sensitive Species	USFWS ESA Candidate	NNHP Status
Hoary bat	<i>Lasiurus cinereus</i>	√		Watch List
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	√		Sensitive
Big brown bat	<i>Eptesicus fuscus</i>	√		None
Silver-haired bat	<i>Lasionycteris noctivagans</i>	√		Watch List
California myotis	<i>Myotis californicus</i>	√		Sensitive
Long-eared myotis	<i>Myotis evotis</i>	√		Watch List
Little brown myotis	<i>Myotis lucifugus</i>	√		Sensitive
Pallid bat	<i>Antrozous pallidus</i>	√		Watch List
Western pipistrelle	<i>Pipistrellus hesperus</i>	√		Watch List
Pygmy rabbit	<i>Brachylagus idahoensis</i>	√		Sensitive
Birds				
Greater sage-grouse	<i>Centrocercus urophasianus</i>	√	√	Sensitive
Bald eagle	<i>Haliaeetus leucocephalus</i>	√		Sensitive
Swainson's hawk	<i>Buteo swainsoni</i>	√		Sensitive
Ferruginous hawk	<i>Buteo regalis</i>	√		Sensitive
Golden eagle	<i>Aquila chrysaetos</i>	√		Watch List
Western burrowing owl	<i>Athene cunicularia</i>	√		Watch List
Short-eared owl	<i>Asio flammeus</i>	√		Watch List
Loggerhead shrike	<i>Lanius ludovicianus</i>	√		Sensitive
Pinyon jay	<i>Gymnorhinus cyanocephalus</i>	√		Watch List
Juniper titmouse	<i>Baeolophus griseus</i>	√		Watch List
Yellow-breasted chat	<i>Icteria virens</i>	√		Watch List

Table 3 Potential Special Status Wildlife and Plant Species at the Pan Project Site				
Common Name	Scientific Name	BLM Sensitive Species	USFWS ESA Candidate	NNHP Status
Plants				
Eastwood milkweed	<i>Ascepias eastwoodiana</i>	√	Species of Concern	Sensitive
Starveling milkvetch	<i>Astragalus jejunus</i> <i>var. jejunus</i>			Watch List
Sagebrush cholla	<i>Grusonia pulchella</i>			Sensitive
Low feverfew	<i>Parthenium ligulatum</i>	√		Sensitive

Sources: NatureServe 2010, NNHP 2010

3.3.3.1 Affected Environment

Greater Sage-Grouse

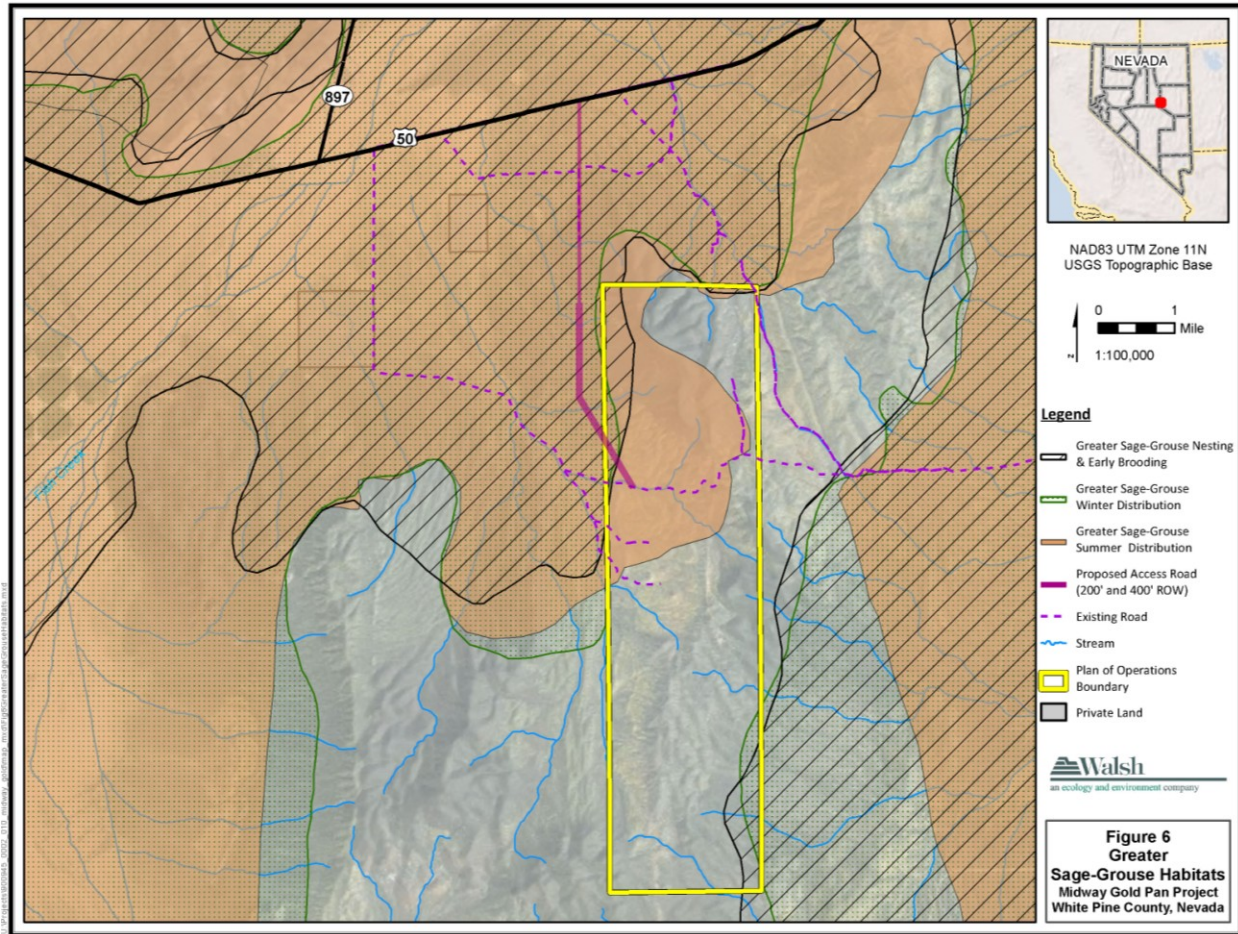
One species detected by JBR, the greater sage-grouse, is a candidate for listing under the ESA. This species is also a BLM sensitive species. JBR (2010b) surveyed five known leks in April and May 2010 and NDOW determined three to be active in the area, as determined by strutting males or sign (pellets or tracks) on the lek. Appropriate habitat occurs in the lower elevations of the project area. As shown on Figure 2, there are two active leks (East Black Point and Southwest Pancake Summit) in the area of the current and proposed access road. A third, inactive lek is west of the East Black Point lek. One active and one inactive lek were identified east of the project area. NDOW identified the northwestern portion of the exploration area as summer habitat and areas along the access road as summer and nesting/early brooding habitat as shown in Figure 6.

Sagebrush habitats are used for greater sage-grouse foraging, strutting, and nesting and provide brood-rearing habitat. In the Pan Project area, core breeding habitat is available in and near the existing leks. The greater sage-grouse is a long-lived bird and has low reproductive rates. They have fidelity to strutting and breeding habitats, using the same locations every year. Disruption of the sage brush habitat could lead to failure to return and abandonment of leks and nests. No additional species currently under ESA protection occur in the study area.

BLM Sensitive Species

Three species of bats were detected near rocky outcrops in pinyon-juniper woodland habitat including hoary bat (*Lasiurus cinereus*), western small-footed myotis (*Myotis ciliolabrum*), and long-legged myotis (*Myotis volans*). While roosting and foraging habitat exist for additional bat species, sparse water resources limit the potential for bats

Figure 6 – Greater Sage-Grouse Habitats



to occur on-site. The BLM considers all bat species that occur within Nevada as sensitive species.

Potential pygmy rabbit (*Brachylagus idahoensis*) habitat to the east and north of the study area was identified by JBR (2010b). However intensive surveys for rabbits and sign (burrows, pellets) in areas of dense sagebrush failed to detect this species.

JBR (2010b) detected two sensitive bird species during the study. A single golden eagle (*Aquila chrysaetos*) was detected near agricultural fields in the northwestern portion of the study area. Potential nesting habitat occurs within the large rock outcrops in the study area, but no golden eagles or nests were identified during any of the surveys. Pinyon jays (*Gymnorhinus cyanocephalus*) were found twice during surveys in pinyon-juniper habitat.

BLM and NDOW identified five golden eagle and two bald eagle occurrences within 10 miles of the project area. Additionally, NDOW identified six ferruginous hawk nests within five miles of the project site. These locations are shown on Figure 7.

Special Status Plant Species

Special status plant species surveys were conducted in June and July 2010 to determine if any of these species were present in the project area (JBR 2010c). Areas identified as suitable habitat for special status species were intensively surveyed on foot and areas identified as potential habitat were spot checked to determine presence or absence of these four species listed in Table 3 (JBR 2010c). No special status plant species were found in the project area.

3.3.3.2 Impact Analysis

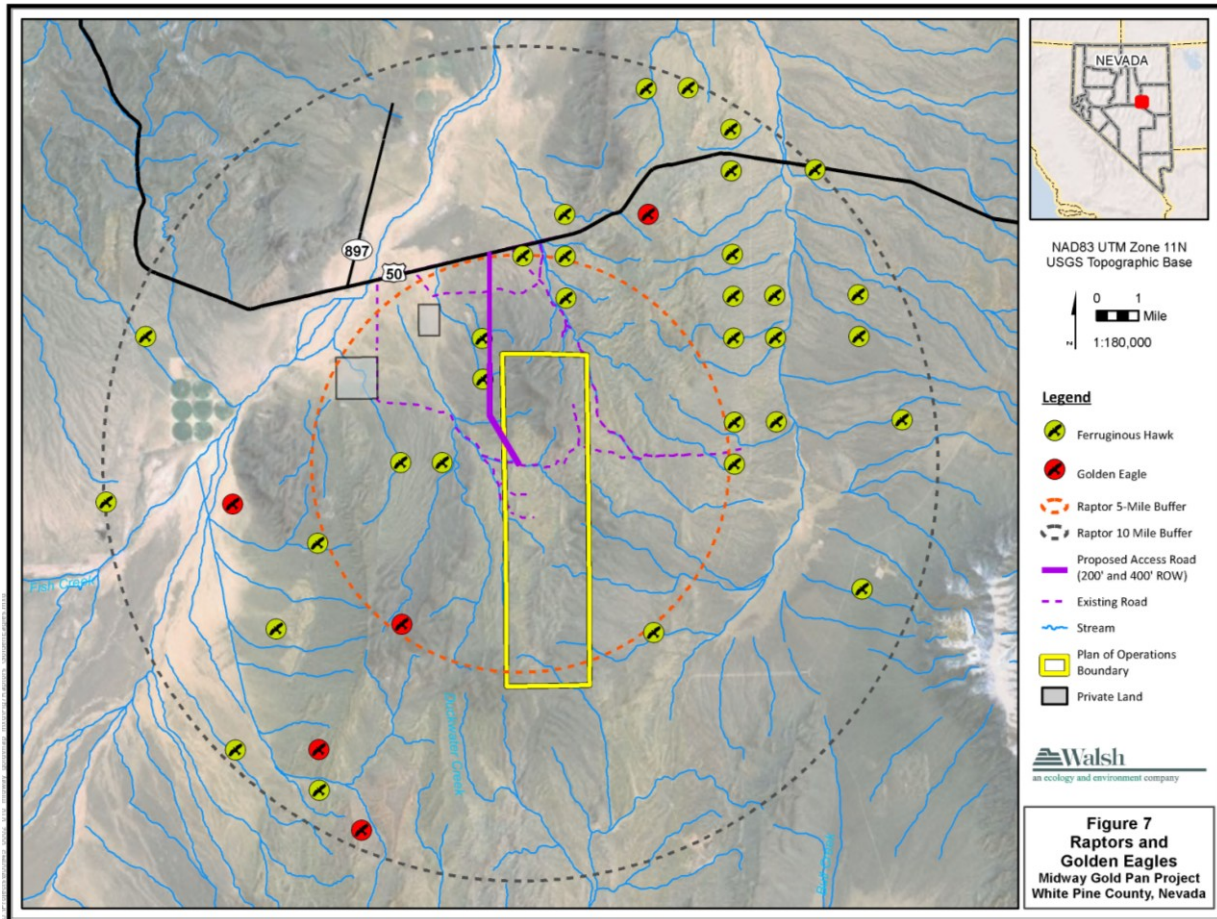
Greater Sage-Grouse

The proposed access road (Figure 2) is unlikely to impact the East Black Point greater sage-grouse lek. This lek is currently bisected by the current access road. Moving the road out of this lek would reduce visual and noise impacts and habitat fragmentation. The proposed access road would be located on the eastern edge of the 2-mile buffer of the East Black Point lek and outside a 1-mile buffer from the Southwest Pancake Summit lek in the eastern part of the project area, but within the 2-mile radius. The proposed access road was evaluated by NDOW and BLM on February 16, 2011 and the proposed route was deemed an acceptable alternative to the current access road.

The proposed road alignment maintains grades of less than 3 percent and is located to the degree possible out of sight of the active leks behind ridges and/or below the leks. By maintaining lower grades, noise would be kept to a minimum by avoiding the need for compression braking and steep climbs. In addition, noise would be blocked by the ridges. MGC will not conduct activities within two miles of any sage grouse lek between March 1 and May 15. No travel will be conducted within a two-mile radius of known active leks from midnight until 10:00 am between March 1st and May 15th.

To determine disturbance impacts to sage-grouse from the proposed access road, a visual analysis was conducted. The view from each lek, from 1 foot above ground level at each lek to 12 feet above the ground surface, was analyzed. The shading indicates if a sage-grouse could see something on the road from 1 foot to 12 feet above the ground surface.

Figure 7 – Raptors and Golden Eagles



It was assumed that an average sage-grouse eye was about 1 foot from the ground and 12 feet was selected because it is about the average height of a semi, the largest trucks that would be using the road. Results of this analysis are shown on Figure 8.

The new access road provides a buffer from sight and noise disturbance. As shown on Figure 8, the new access road would not be visible to sage-grouse occupying the Southwest Pancake Summit lek. The new access road would be visible to sage-grouse occupying the East Black Point lek, but the road would not be visible at less than 1.5 miles from the lek.

The proposed access road is located out of direct line-of-sight in most cases from active leks by ridges or swales, reducing potential sight and noise disturbance. Minimal grades would further reduce noise from braking, steep climbing, and descents. No travel would occur between midnight and 10:00 am between March 1 and May 15, to minimize disturbance during the peak of lek activity.

No direct negative impacts to either sage-grouse lek from the proposed access road are projected. The East Black Point lek would see a reduction in traffic accessing the project area. There would be impacts to potential sage-grouse habitats outside of the 1-mile buffer zone from the removal of native vegetation, establishment of weed species, fragmentation of habitat, and increased predator activity. Greater sage-grouse could be more vulnerable to disturbance by reducing patch size, increasing the amount of edge, and increasing accessibility to predators. Approximately 20 acres of greater sage-grouse summer, winter, nesting, and early brooding areas would be disturbed. While restoration of the greater sage-grouse habitat would begin as soon as the road is no longer needed, full habitat restoration could take up to 50.

Golden eagle nests are present within 10 miles of the project site and ferruginous hawk nests within 5 miles. Active nests were not found within the project area. Golden eagles and ferruginous hawk may use the project area for foraging for prey. Impacts to raptors would be very small because the disturbance is small in comparison to their forage range.

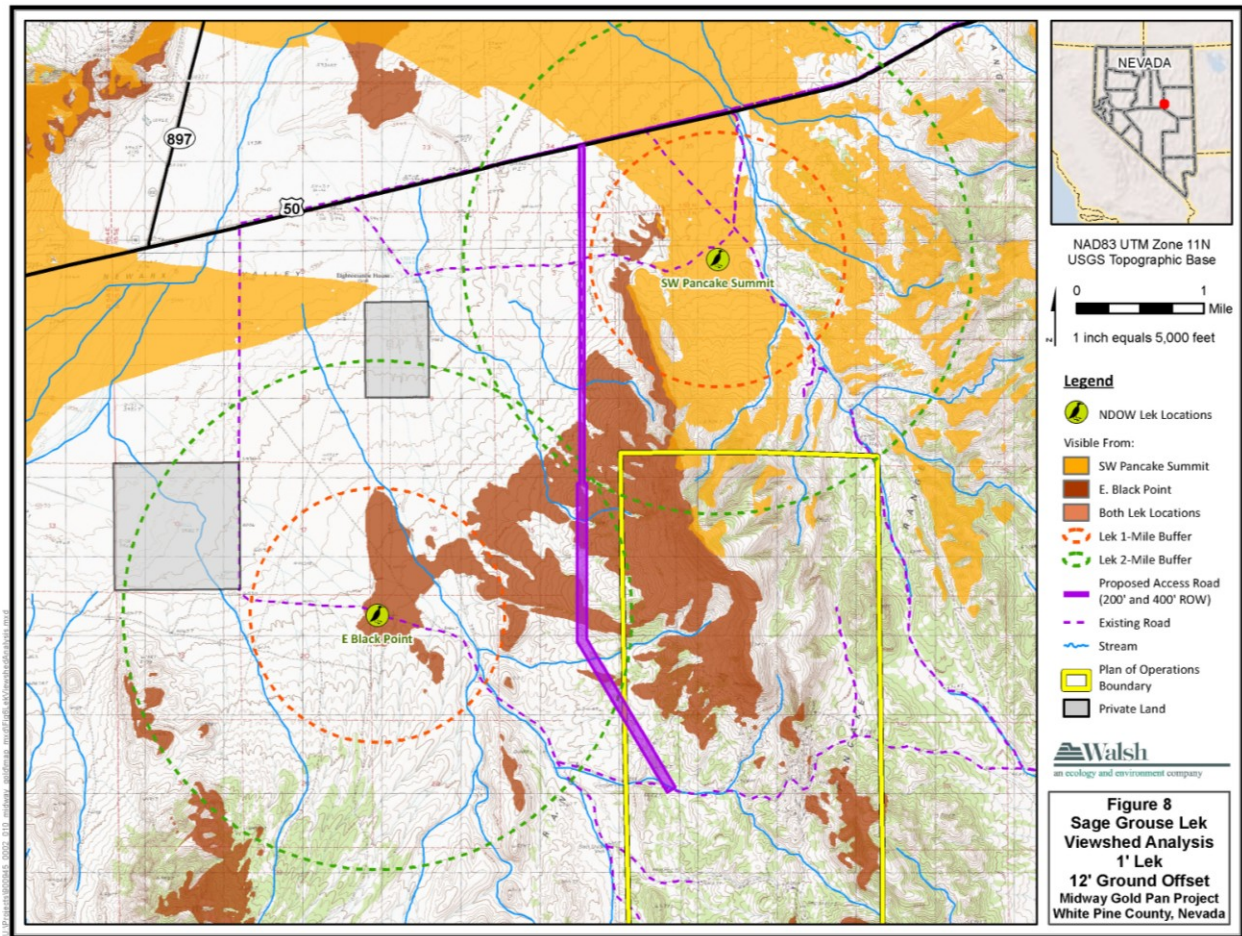
Bats

Bats could be attracted to drilling mud sumps in the exploration area. Sumps are expected to dry quickly, but in the cases that do not dry quickly and the fluids pose a hazard to wildlife, MGC would work with BLM to reduce wildlife hazard by either removing the fluid or backfilling the sump. Several drilling additives may be present in the sumps. These products are water based.

Plants

There would be no impacts to special status plant species because there are no special status plant species present in the proposed disturbance areas.

Figure 8 – Sage-Grouse Lek Viewshed Analysis



3.3.4 General Fish and Wildlife

3.3.4.1 Affected Environment

General wildlife surveys (JBR 2010b) identified several common mammal species throughout the study area including black-tailed jackrabbit (*Lepus townsendii*), coyote (*Canis latrans*), and pronghorn (*Antilocapra americana*). Sagebrush habitats hosted two common species of ground squirrel (*Ammospermophilus* sp.). Sign for gray fox (*Urocyon cinereoargenteus*) and bobcat (*Lynx rufus*) was observed. Mule deer (*Odocoileus hemionus*) commonly occur in sagebrush habitat, although they were not observed.

The project area is in NDOW hunt unit 131 which is approximately 999,000 acres. Mule deer is the most prevalent species. The NDOW spring 2010 survey classified 1,215 mule deer in hunt unit 131. Pronghorn were also noted in the project area and the fall 2009 NDOW survey classified 490 animals in hunt unit 131. There were lesser numbers of Rocky Mountain elk – 118 in spring of 2010 and desert big horn sheep – 46 animals. Both Rocky Mountain elk and desert big horn sheep are more common in the southern parts of the hunt unit. Mountain lion statistics are available for hunt units 131 through 134. NDOW indicates that 3 mountain lions were harvested in these hunt units during 2009 to 2010 but does not indicate survey information (NDOW2010).

Two common reptile species were observed near rocky outcrops; the sagebrush lizard (*Sceloporus graciosus*) and the western fence lizard (*Sceloporus occidentalis*).

Fish habitat is non-existent within the study area.

3.3.4.2 Impact Analysis

There would be negligible impacts to wildlife. Big game species including mule deer and pronghorn have been noted in the project area, while other big game species including elk, bighorn sheep, and mountain lions are present adjacent to the project area.

Big game species including mule deer and pronghorn would be temporarily impacted by human disturbance and would avoid disturbances. If drilling fluids that remain in sumps pose a hazard to wildlife, MGC would work with BLM to reduce wildlife hazards at sumps by either removing the fluid or backfilling sumps.

Disturbance roads and well pads would be discontinuous and would total approximately 75 acres over approximately 10,756 acres (0.7 percent) in the project area. The exploration project would impact approximately 75 acres out of the 999,000 acre hunt unit (0.007 percent) and the impacts to habitat would be small.

Habitat reclamation would begin as soon as infrastructure is no longer needed. Revegetation is expected within 3 years.

3.3.5 Vegetation Resources

3.3.5.1 Affected Environment

In the spring of 2010, JBR (2010c) conducted a vegetation baseline survey of the project area. The following plant community descriptions and associated species are from this baseline survey. Vegetation in the project area consists of three main vegetation community types including sagebrush, Intermountain Cold Desert Scrub, and the lower montane woodland community. These vegetation communities are dependent upon

elevation, soil type and depth, slope, aspect, and precipitation. The elevation in the project area ranges from 5,900 to 7,300 feet.

The sagebrush community covers the largest area (1,900 acres) and is found at elevations ranging from 6,800 to 8,800 feet. Vegetation noted in this community includes a native shrub overstory of basin big sagebrush (*Artemisia tridentata* sp. *tridentata*), black sagebrush (*Artemisia nova*), broom snakeweed (*Gutierrezia sarothrae*), and rabbitbrush (*Ericameria* sp.). An herbaceous understory of graminoids and forbs is dominated by white stem stickleaf (*Mentzelia albicaulis*), bottlebrush squirreltail (*Elymus elymoides*), cheatgrass (*Bromus tectorum*), Sandberg's bluegrass (*Poa secunda*), and needle and thread grass (*Stipa comata*).

The lower montane woodland community comprises approximately 1,100 acres of the project site and occurs at elevations ranging from 6,500 to 7,300 feet. The woodland canopy is dominated by singleleaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) with snowberry (*Symphoricarpos* sp.) and curl-leaf mountain mahogany (*Cercocarpus ledifolius*) interspersed throughout. Rabbitbrush, black sagebrush, big sagebrush, low sagebrush (*Artemisia arbuscula*), desert fraseria (*Frasera albomarginata*), and Hood's phlox (*Phlox hoodii*) dominate the understory.

The Intermountain Cold Desert Scrub community is located in the lower elevations of the project area (5,900 to 6,400 feet) and occupies the smallest area of approximately 900 acres. Dominant species found in this community are greasewood (*Sarcobatus vermiculatus*), shadscale (*Atriplex confertifolia*), hop sage (*Grayia spinosa*), black sagebrush, broom snakeweed, and winterfat (*Krascheninnikovia lanata*). Grasses and forbs found in the understory are dominated by Sandberg's bluegrass, Indian ricegrass (*Achnatherum hymenoides*), bottlebrush squirreltail, and desert globemallow (*Sphaeralcea ambigua*).

Disturbed areas from exploration and access roads include plant associations that reflect both reclaimed and unreclaimed surfaces. The revegetated areas include a combination of species from surrounding natural plant communities, reclamation species, and adventives (non-native) or ruderal species. The disturbed areas are dominated by seeded species including blue flax (*Linum lewisii*) and crested wheatgrass (*Agropyron cristatum*), and annual invasive species such as cheatgrass (*Bromus tectorum*) and purple mustard (*Chorispora tenella*).

3.3.5.2 Impact Analysis

Direct impacts to vegetation would include removal or disturbance of vegetation, resulting in a decrease in native vegetation; decrease in the number of plant species; and a decrease in structure, diversity, function, and area of wildlife habitat. Indirect impacts to vegetation include introduction of noxious weeds, loss of habitat due to surface compaction and trampling, reduction of pollinators, and loss of habitat suitable for colonization of plant species as a result of surface disturbance.

Impacts to vegetation resources include setting the disturbed sites to an early seral stage that would increase grasses and reduce shrubs. The following assumptions were integrated into the impact analysis:

- Project actions would be planned to meet overall resource management objectives for upland vegetation. This would include application of all appropriate BMPs for erosion control, prevention and control of noxious weeds, and revegetation with species native to the local region.
- Natural revegetation would occur over time, increasing the diversity of revegetated areas.
- With the integration of the BMPs listed above, no noxious weeds would be introduced to the Pan Project site, nor would these plant species be spread throughout the site.
- Because of the relative size of this exploration project in the overall Newark Grazing Allotment, neither of the alternatives would impact the allotment or authorized grazing on the allotment.

Vegetation impacts are discussed with respect to the estimated area of ground-disturbance and are summarized below.

The proposed access road would impact vegetation through the direct removal of vegetation and soil resulting in the potential for wind and water erosion. The access road would result in approximately 20 acres of new vegetation disturbance in the sagebrush and intermountain cold desert scrub habitats.

The largest impact to vegetation would be from the proposed drill roads and pads. Drill roads and pads and other sampling would disturb approximately 55 acres of sagebrush, intermountain cold desert scrub, and lower montane woodland community vegetation.

Overall impacts to vegetation would be minimal with all disturbed areas being reclaimed.

3.3.6 Soil Resources

3.3.6.1 Affected Environment

Soils in the project area are formed on fan pediments and remnants, inset fans, fan skirts, hills, and mountains. In general, soils in the Project Area are formed on steep slopes and are loams that contain excessive gravel or stones. Most of the soils in the Project Area are slightly alkaline, with pH values averaging about 8.4 to 8.6.

Soil information was gathered from the Natural Resources Conservation Service (NRCS) soil survey website (2010) and the Pan Project soil report (JBR 2010d). Soil associations in the project area are shown on Figure 9. Soil associations may have small inclusions of soils that do not fit the characterization of the majority of soil series. Inclusions are not further described.

The proposed access road traverses several soil associations as listed in Table 4. These soils are rangeland soils and are generally deep and support grassland vegetation.

Soils in the exploration area are listed in Table 5. Soils in the exploration area are generally shallow and prone to erosion. These soils support pinyon, juniper, sagebrush, and grasses.

NEVADA

NAD83 UTM Zone 11N
ESRI Imagery World 2D Base

0 1
Mile

1 inch equals 1 mile

Legend

- Proposed Access Road (200' and 400' ROW)
- Existing Road
- Stream
- Plan of Operations Boundary
- Private Land

Soil Association

- Atlow
- Atlow-Maderbak-Rubble land
- Atlow-Upatad
- Broland
- Broyles-Heist-Unsel
- Heist-Tulase
- Hyzen-Pookaloo-Tecomar
- Izar
- Katelana
- Linoyer-Heist-Tulase
- Palnor
- Palnor very gravelly loam, 2 to 15 percent slopes
- Palnor-Urmafot-Palnor, steep
- Palnor-Urmafot-Roden
- Palnor-Wintermute
- Ploche-Cropper
- Pookaloo-Zimbo-Hyzen
- Pyrat-Cowgill-Broyles
- Pyrat-Tulase
- Roden-Haarvar, steep
- Roden-Izar
- Stewal-Rock outcrop complex
- Upatad-Pookaloo
- Yody-Palnor-Shabliss
- Zerk-Heist-Tosser
- Zimbo-Hyzen-Rock outcrop
- Zimbo-Pookaloo

Figure 9
Soil Associations
Midway Gold Pan Project
White Pine County, Nevada

Walsh
an ecology and environment company

Table 4 Dominant Soil Associations in the Access Road Area

Soil Association	Description	Approximate Acres (within 200 feet of proposed roads)
Zimbob-Pookaloo	Shallow and well drained, extremely gravelly loam and very gravelly loam on hills and mountains of 15 to 50% slope. Shallow and well drained, very gravelly loam on hill and mountain slopes of 15 to 50%.	11 Overlaps with exploration area
Palinor-Wintermute	Shallow, very gravelly loam on fan remnants with slopes of 2 to 50%. Deep, gravelly silt loam on fan remnants and skirts with slopes of 0 to 15%.	22
Pyrat-Cowgill-Broyles	Very deep, well drained, gravelly sandy loam on alluvial fans, fan remnants, and fan skirts with slopes of 0 to 30%. Very deep, well drained, very gravelly sandy loam on fan remnants and hills with slopes of 0 to 50%. Very deep, well drained, very fine sandy loam on alluvial fans, fan remnants, and fan skirts with slopes of 0 to 8%.	2
Broland	Shallow, well drained, very gravelly loam on fan remnants with slopes of 2 to 30%.	64
Palinor-Umafot-Pallinor steep	Shallow, very gravelly loam on fan remnants with slopes of 2 to 50%. Very shallow or shallow gravelly loam on fan remnants with slopes of 2 to 50%.	5

Table 5 Dominant Soil Associations in the Exploration Area

Soil Association	Description	Approximate Acres
Atlow-Maderbak-Rubble land	Shallow, well drained, very gravelly loam on hill and mountain slopes from 15 to 50%. Moderately deep and well drained, very gravelly clay loam on summits and side slopes of hills and mountains slopes range from 30 to 75%. Rubble consisting of broken stones of irregular size and texture on slopes from 30 to 75%.	2,583
Atlow-Upatad	Shallow and well drained, very gravelly loam on hill and mountain slopes from 15 to 50%. Shallow, very gravelly silt loam, on hill and mountain slopes from 15 to 50%.	234
Hyzen-Pookaloo-Tecomar	Shallow, well drained, extremely stony loam on hill and mountain slopes of 15 to 50%.	2,683

Table 5 Dominant Soil Associations in the Exploration Area

Soil Association	Description	Approximate Acres
	Shallow, well drained, very gravelly loam on hill and mountain slopes of 15 to 50%. Shallow, well drained, extremely stony silt loam on mountain and hill slopes of 15 to 50%.	
Roden-Izar	Shallow and well drained, very gravelly clay loam on hills, mountains, and rock pediments with slopes of 8 to 30%. Shallow, well drained, very gravelly loam on hills, fan remnants, and rock pediments with slopes of 8 to 30%.	157
Zimbob-Pookaloo	Shallow and well drained, extremely gravelly loam and very gravelly loam on hills and mountains of 15 to 50% slope. Shallow, well drained, very gravelly loam on hill and mountain slopes of 15 to 50%.	1,549
Pookaloo-Zimbob-Hyzen	Shallow and well drained, very gravelly loam on hill and mountain slopes of 15 to 50%. Shallow, well drained, extremely gravelly loam and very gravelly loam on hills and mountains of 15 to 50% slope. Shallow and well drained, extremely stony loam on hill and mountain slopes of 15 to 50%.	1,239

3.3.6.2 Impact Analysis

Impacts to soil would be the result of direct soil removal, compaction, and redistribution from clearing of vegetation; removal of soil; and vehicle traffic, rutting, and creation of road dust.

Short-term impacts are anticipated from construction of a new access road. Construction impacts would include direct removal of vegetation and soil resulting in increased potential for wind and water erosion. Vehicle traffic on the access road would further compact the soil resulting in loss of infiltration capacity, increased erosion potential, and reduction in productivity. Approximately 20 acres of soil would be disturbed for the access road. Most of the disturbance would be to the Broland soils. However because slopes are relatively shallow, extensive erosion is not anticipated. Reclamation of these and other soils in the vicinity of the access roads would reduce long-term impacts.

Drill roads and pads would result in the largest impact to soils. Approximately 55 acres of soil would be disturbed. Soils in the exploration area are more susceptible to erosion because of soil type and slope. Most of the disturbance would occur in the Atlow-Maderbak-Rubble land and Hyzen-Pookaloo-Tecomar soil associations. These shallow, gravelly, and stoney loams are on relatively steep slopes, are easily eroded, and have poor reclamation potential. Short-term impacts include removal of soil and vegetation increasing erosion potential. Long-term soil impacts would be mitigated because roads and drill pads would be reclaimed. Roads and drill pads would be constructed to minimize surface disturbance and erosion. Balanced cut-and-fill construction would be

used to the extent possible to minimize the exposed cut slopes and the volume of fill material. Road construction within drainages would be avoided where possible.

Overall impacts to soil resources would be negligible because less than 1% of the claim area would be disturbed.

3.3.7 Visual Resource Management

3.3.7.1 Affected Environment

The project area has the topography typical of that found in the Basin and Range Physiographic Province of the western United States. Elevations in the Project Area range from approximately 6,400 to 7,300 feet AMSL. Dryland vegetation including sagebrush and pinyon and juniper communities, dominate the landscape. Views are mostly unobstructed.

In accordance with the Ely RMP (BLM 2008), the project area is within VRM Classes III and IV as shown in Map 10 of the Ely ROD (BLM 2008a) and Figure 10. The VRM Class III area encompasses Highway 50, “The Loneliest Road in America” and the western portion of the 1913 segment of the Lincoln Highway. The access road from Highway 50 to the project site would be within VRM Class III. The Pancake Range, where exploration would occur, is within VRM Class IV.

The Class III objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Project activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

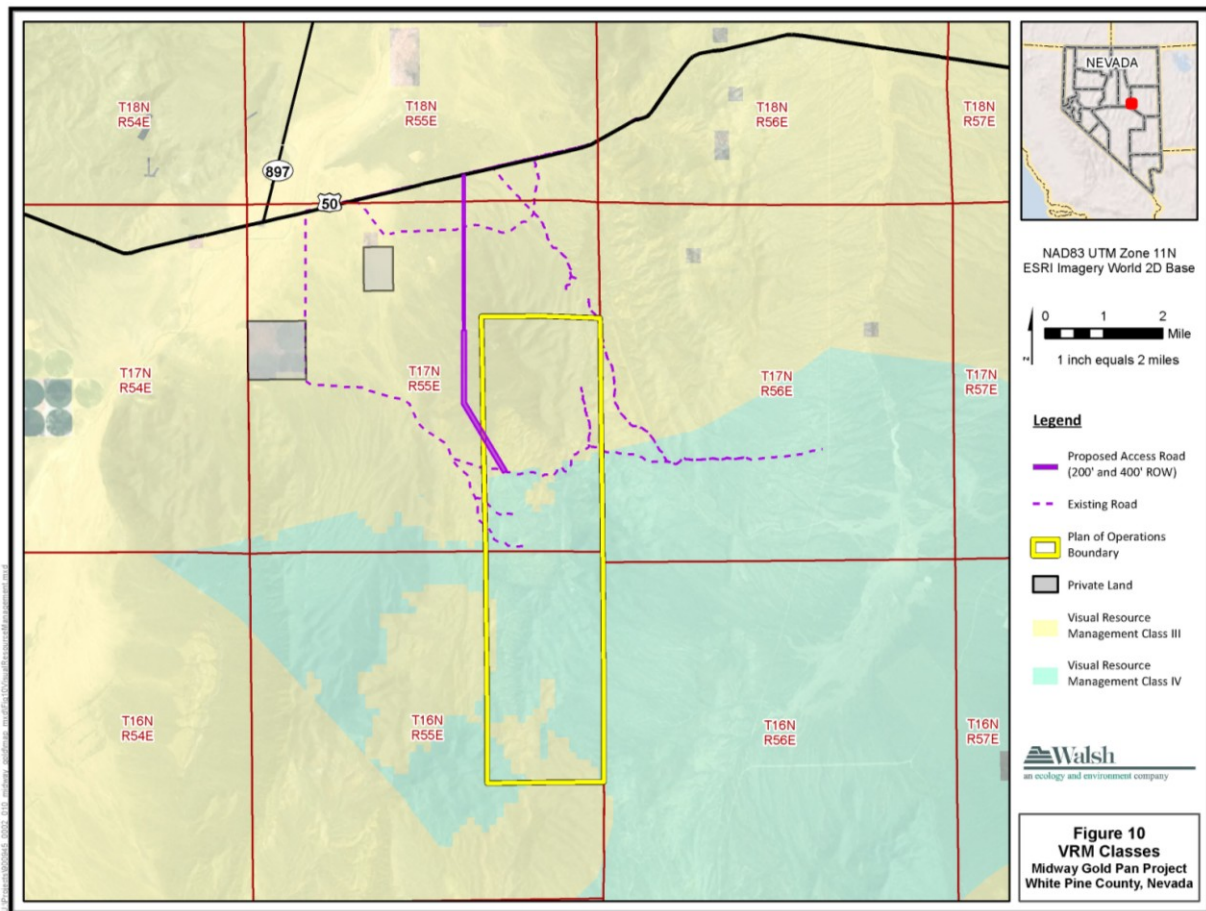
The Class IV VRM objective is to allow for management activities that involve major modification of the existing character of the landscape. The level of contrast can be high; dominating the landscape and the focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the characteristic landscape.

3.3.7.2 Impact Analysis

The proposed exploration project is located within an area previously used for exploration activities as authorized with the Pan Exploration Project EA (BLM 2004b) and numerous previous entities. Landscape colors in the area consist mainly of greens and browns, and vegetation is present throughout the project area. Man-made features are mostly linear and consist predominately of roads and fences. The strong horizontal lines of the existing roads and fences create moderate to weak contrasts to the landscape of the valley.

There would be temporary impacts to visual resources within the VRM Class III area. A new access road would be built from Highway 50 to the project area. This road would be constructed with an average 16-foot wide running surface and a total average road disturbance width of 32 feet. The running surface would be graded and graveled. The new road would not dominate the view of the casual observer, as it is consistent with the current man-made linear disturbances in the surrounding area. However it does not meet

Figure 10 – VRM Classes



the objective of VRM Class III, as the straight perpendicular line of the proposed road from Highway 50 is not consistent with the predominant natural features of the characteristic landscape. The new road would add to the linear man-made disturbances that currently exist in the landscape until reclamation is complete.

There would be temporary impacts in the Class IV VRM areas from borehole drilling. Temporary drill roads and well pads would contrast with the existing landscape. Vegetation removal would result in color contrasts, and the linear roads would contrast with the surrounding area. However, reclamation and revegetation of the exploration roads and well pads would minimize long-term visual impacts.

Impacts on visual resources could remain following cessation of exploration and reclamation until native vegetation is completely reestablished. Areas where reclamation is not complete or successful would continue to contrast with visual resources. Any evidence of reclaimed roads may invite continued use by the general public, perpetuating linear intrusions in the characteristic landscape.

3.3.8 Paleontological Resources

3.3.8.1 Affected Environment

Paleontological resources may be present in the project area; however, no paleontological survey has been conducted. When paleontological resources of potential scientific interest are encountered (including all vertebrate fossils and deposits of petrified wood), they would be left intact and immediately brought to the attention of the BLM Authorized Officer.

3.3.8.2 Impact Analysis

There would be no impacts because when vertebrate fossils or petrified wood are found, they would be left intact pending BLM Authorized Officer evaluation.

3.3.9 Recreation Resources

3.3.9.1 Affected Environment

Recreation use within the area is dispersed and low. There are no developed recreation facilities or sites in the area. Access to the proposed project, including the northern portion of the project area is located within the Loneliest Highway Special Recreation Management Area adjacent to Highway 50. Recreation pursuits within the area include off-highway vehicles (OHV), four-wheel driving, hunting, hiking, sightseeing, outdoor photography, wildlife viewing, and camping.

Access throughout the project area would remain open to the public, which would allow recreational uses to continue. At this time, the proposed continued exploration would involve no restrictions on access to the site.

3.3.9.2 Impact Analysis

Drilling activities would create short-term disturbances that may interfere with recreational pursuits in this area. Construction of access routes, drill pads, and ancillary facilities could temporarily affect the location or abundance of wildlife species available in the area for viewing and/or hunting. Also the sight and sound of exploration activities would potentially diminish the solitude, naturalness, and primitive and unconfined recreation opportunities desired by many outdoor enthusiasts.

Construction of new roads could improve access for some types of recreational activities. However, all recreationists would not necessarily benefit and some would temporarily stop using certain areas because of drilling activities. No commercial or competitive special recreation permits (SRP) events are scheduled to occur within this area.

Long-term impacts would be the result of any constructed roads that are left unreclaimed or only partially reclaimed, which may invite continued use by the general public.

4 CUMULATIVE IMPACTS

4.1 Introduction

As required under NEPA and the regulations implementing NEPA, potential cumulative impacts from past, present, and reasonably foreseeable future actions combined with the Proposed Action, are described in this section. Impacts are analyzed for the same area as the Proposed Action. A cumulative impact is defined as “the impact which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions (RFFA), regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

Currently, ranching is the predominant land use in the project area with mining exploration and oil and gas exploration as secondary land uses. Limited recreational activity is also occurring. These activities affect similar elements of the environment in that they remove soil and surface vegetation, reduce native habitats, displace wildlife, reduce visual quality, and may introduce invasive species. Unless otherwise specified, the region of influence for each resource in the cumulative analysis is the same as the area defined in Chapter 3. Quantification of cumulative impacts is difficult for the resources because of uncertainties regarding the scale of past and future projects on BLM or private lands.

The cumulative impact of past, present and reasonably foreseeable future actions is described in the following sections.

4.2 Past Actions

White Pine County has been an active mine exploration and mining area since the 1870s. Gold was discovered in the Pancake Range in 1978 and since that time several companies have explored the area. No gold mining has occurred in the Pan Project area. Portions of the Pan Project area have been disturbed by previous mineral exploration activity, some of which has been reclaimed, some of which has not. Previous exploration companies drilled a total of 846 holes in the Pan Project area as shown in Table 6.

Table 6 Previous Mining Exploration Activities		
Company	Number of Holes	Years
Amselco	85	1978-1985
Hecla	8	1986
Echo Bay	113	1987-1988
Alta Bay Venture	213	1988-1991
Alta Gold	17	1992
Southwestern Gold	7	—
Latitude/Degerstrom	54	1999-2002

Table 6 Previous Mining Exploration Activities		
Company	Number of Holes	Years
JV		
Castleworth Ventures	205	2003-2006
MGC	162	2007-2008

Source: Gustavson Associates (2010)

4.2.1 Cumulative Impact Analysis for Past Actions

Disturbance from past mining exploration actions was estimated by assuming drill pads were 30 x 70 feet and that the acres of roads were in the same proportion to that of the proposed action. This estimate, detailed in Table 7, results in approximately 196 acres of past disturbance from mining exploration activities.

Table 7 Previous Mining Exploration Disturbance			
Company	Number of Holes	Approximate Disturbance from Bore Holes	Approximate Disturbance from Roads
Amselco	85	4.1	15.2
Hecla	8	0.4	1.4
Echo Bay	113	5.5	20.2
Alta Bay Venture	213	10.3	38.1
Alta Gold	17	0.8	3.0
Southwestern Gold	7	0.3	1.3
Latitude/Degerstrom JV	54	2.6	9.7
Castleworth Ventures	205	9.9	36.6
MGC	162	7.8	29.0
Total	864	41.7	154.4

4.2.1.1 Resource/Concern 1 – Cultural Resources

Approximately 1.5 miles of the western segment of the 1913 Lincoln Highway has already been impacted by past activities. This segment was evaluated for inclusion in the NRHP and the SHPO has determined that this segment is not eligible (NSHPO 2011). The center segment of the 1913 Lincoln Highway traverses the project area within the exploration area and is considered an unevaluated resource. Widening of the highway has occurred from ongoing use for ranching, mining exploration, and oil and gas exploration. There is evidence that Carbonari sites have been impacted from previous mine exploration (drilling and road widening). Past exploration and recreation activities

may have resulted in impacts from vandalism, collection of artifacts, or inadvertent destruction of resources.

4.2.1.2 Resource/Concern 2 – Wildlife and Special Status Species

Cumulative impacts to wildlife and special status species from past activities can be described in terms of the amount of acreage disturbed. The Project area is part of hunt unit 131, as shown on Figure 11. Hunt unit 131 will be used as the cumulative effects study area for big game species. Approximately 196 acres of habitat has been disturbed in the project area from past exploration activities. Approximately 3.1 acres of past disturbance from Castleworth Ventures has been reclaimed. This disturbance is approximately 0.02 percent of the total hunt unit area. Disturbance is discontinuous and from roads and wells pads in an area of approximately 10,756 acres.

The East Black Point lek along the western segment of the 1913 route of the Lincoln Highway may have been impacted by past ranching, hunting, and other recreation, and exploration activities. Impacts to other wildlife and special status species were likely temporary displacement of wildlife, but long-term impacts are unknown.

4.2.1.3 Resource/Concern 3 – Vegetation Resources

Approximately 196 acres of vegetation has been disturbed in the project area from past exploration activities. While there has been some reclamation by previous exploration companies, the impact of these exploration projects is still visible across the project area as road and drill pad scars as shown in Figure 12. Approximately 3.1 acres of past disturbance from Castleworth Ventures has been reclaimed.

4.2.1.4 Resource/Concern 4 – Soil Resources

Cumulative impacts to soil resources from past mining activities has affected approximately 196 acres in the project area. Soils were eroded; compacted; and/or redistribution from clearing of vegetation, removal of soil, and vehicle traffic and rutting.

4.2.1.5 Resource/Concern 5 – Visual Resources

Approximately 196 acres has been disturbed in the project area from past mining activities and only about 3.1 acres of this disturbance was reclaimed. The impact of these exploration projects is still visible across the project area as road and drill pad scars as shown in Figure 12.

4.2.1.6 Resource/Concern 6 – Recreation Resources

Cumulative impacts to recreation resources from past activities cannot be quantified. Exploration and ranching activities have increased roads in the area allowing recreationists more improved access. The presence of exploration may have resulted in temporary impacts by affecting the location or abundance of wildlife species available in the area for viewing and/or hunting. In addition, the sight and sound of exploration activities may potentially diminish the solitude, naturalness, and unconfined recreation opportunities desired by many outdoor enthusiasts.

Figure 11 – Hunt Unit 131

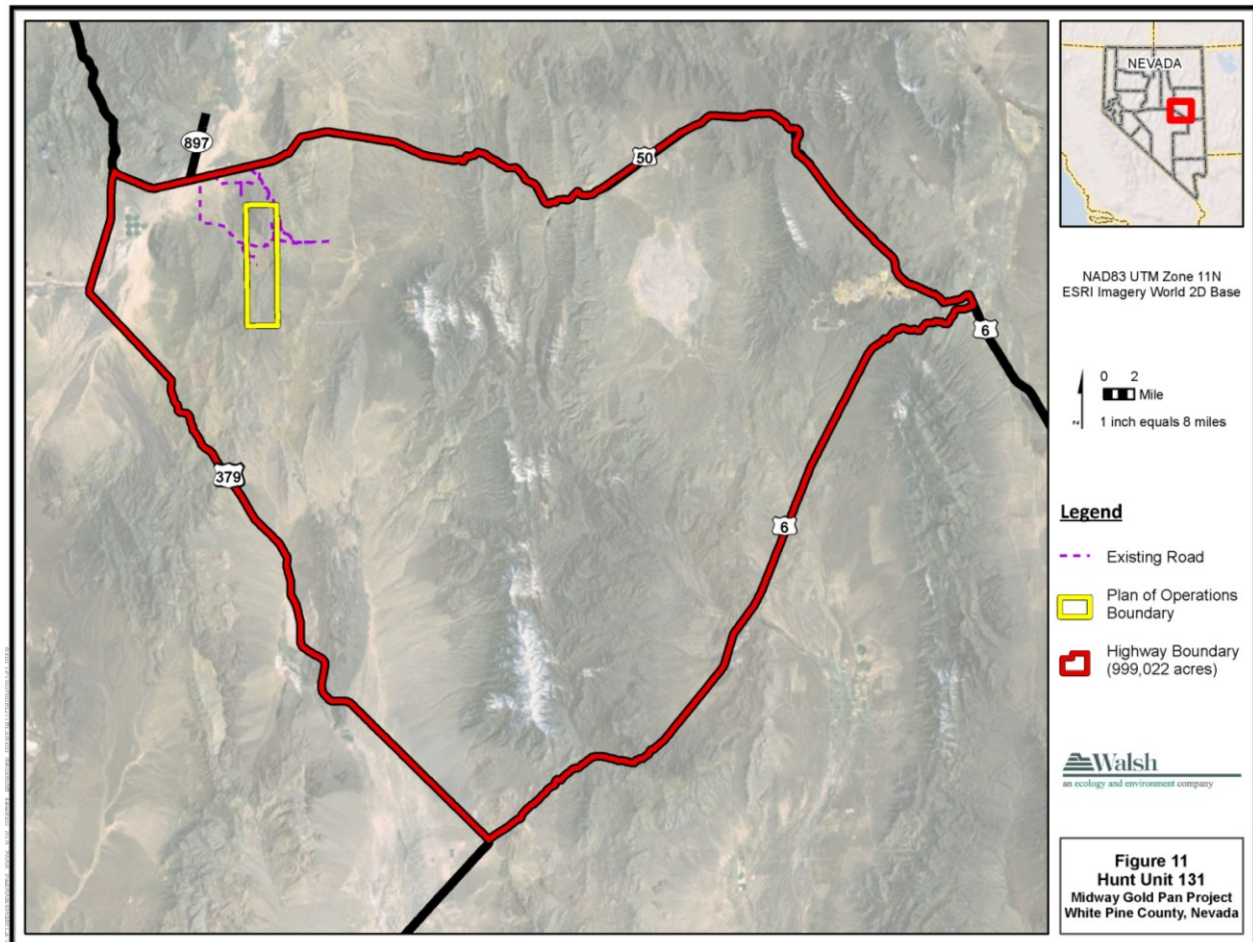




Figure 12 – Past Disturbance from Mining Activity in the Pan Project Area

4.3 Current Actions

MGC currently has an exploration project authorized to disturb 25 acres. This second Amendment to that POO would add 75 acres of disturbance including drill pads, laydown areas, trenches, roads, and other exploration facilities. Additionally, a new access road that would avoid the East Black Point sage-grouse lek would be constructed. Following the reclamation plan in the Proposed Action, all proposed disturbance would be recontoured and reseeded. Topsoil would be segregated from the fill material next to the disturbed areas and seeded with an interim seed mix.

Other current projects in the area include the following:

- The Emergent Value Group (Emergent) has built a drill pad and will be drilling a wildcat oil well to search for a reserve. If they find oil, they plan on drilling another well nearby or on the same pad. The Emergent exploration area is east of the MGC exploration area. Emergent is using the western portion of the 1913 segment of the Lincoln Highway as an access road.
- Renaissance Exploration Inc. is conducting mineral exploration and drilling bore holes under a Notice on 1.15 acres in the SW quarter, Section 23, T16N, R55E, which is southeast of the development area. Renaissance is entering the area from the eastern side of the Pancake Range.

4.3.1 Cumulative Impact Analysis for Current Actions

Activities related to the proposed project in conjunction with other current projects may result in cumulative impacts as discussed in the following sections.

4.3.1.1 Resource/Concern 1 – Cultural Resources

MGC would avoid all cultural resources as part of the project design but there would be cumulative impacts to cultural resources in the exploration area from recreationists and

ranchers. The center segment of the 1913 Lincoln Highway traverses the project area within the exploration area and is considered an unevaluated resource. The center segment will be avoided within 100 feet of the centerline to avoid adverse impacts to cultural resources. The extent of impacts cannot be quantified, but could result from vandalism, collection of artifacts, or inadvertent destruction of resources. There would be no impacts from the Proposed Action because the resource would be avoided.

4.3.1.2 Resource/Concern 2 – Wildlife and Special Status Species

The current access road passes through the East Black Point sage-grouse lek. There are ongoing cumulative impacts to the lek from vehicle disturbance, noise, and fugitive dust. Currently MGC, Emergent, ranchers, and recreationists use this access road.

As part of the Proposed Action, MGC would build a new access road to avoid the East Black Point lek and Southwest Pancake Summit lek to the east. This would result in a substantial reduction in cumulative impacts to the sage-grouse leks because they will be avoided. Additionally, the new access road is designed to reduce visual and noise impacts to the leks. It is unknown whether other exploration companies, Emergent, ranchers, or recreationists would continue to use the current access road. If other users continue to use the current access road, there will be ongoing impacts to the lek.

Cumulative impacts to wildlife and special status species from current activities can be described in terms of the amount of acreage disturbed. The Project area is part of hunt unit 131, as shown on Figure 11. Hunt unit 131 will be used as the cumulative effects study area for big game species. Approximately 75 acres of habitat will be disturbed in the project area from proposed MGC activities. This disturbance is approximately 0.007 percent of the total hunt unit area. Impacts would be discontinuous over 10,756 acres. Impacts would be temporary, because big game species would avoid the disturbance, but would return when human disturbance ceases. Restoration of these disturbances would begin as soon as infrastructure is no longer needed.

4.3.1.3 Resource/Concern 3 – Vegetation Resources

There would be cumulative impacts to vegetation in the access area from MGC, Emergent, ranching, and recreation activities. Construction of a new access road would increase impacts by removing vegetation for the road. Approximately 20 acres of disturbance to vegetation is anticipated.

Cumulative impacts to vegetation resources in the exploration area would be experienced from MGC and Renaissance exploration activities. Vegetation would be removed for access roads and drill pads. Approximately 55 acres of disturbance is anticipated from the MGC Pan Project exploration in the montane woodland community. This vegetation disturbance will be increased by the Renaissance exploration activities.

4.3.1.4 Resource/Concern 4 – Soil Resources

There would be cumulative impacts to soil in the access area from MGC, Emergent, ranching, and recreation activities. Construction of a new access road would increase impacts by disturbing soil for road construction. Approximately 20 acres of disturbance to soil is anticipated.

Cumulative impacts to soil resources in the exploration area would be experienced from MGC and Renaissance exploration activities. Soil would be removed for access roads

and drill pads. Approximately 55 acres of disturbance is anticipated from the MGC Pan Project exploration in the exploration area. This soil disturbance will be increased by the Renaissance exploration activities.

4.3.1.5 Resource/Concern 5 – Visual Resources

MGC would build a new access road from Highway 50 to the project area.

Past mining activities disturbed approximately 196 acres in the project area and only about 3.1 acres of this disturbance was reclaimed. The impact of these exploration projects is still visible across the project area as road and drill pad scars as shown in Figure 9. Past exploration projects were not reclaimed; however, the MGC 2004 POO and the current MGC POO contain reclamation requirements.

Temporary impacts on visual resources could remain following cessation of exploration and reclamation until native vegetation is completely reestablished. Areas where reclamation is not complete or successful would continue to contrast with visual resources. Any evidence of reclaimed roads may invite continued use by the general public, perpetuating linear intrusions in the characteristic landscape.

4.3.1.6 Resource/Concern 6 – Recreation Resources

While recreation in the area is low, there would be cumulative impacts to recreation from the combined MGC and Emergent projects in the vicinity of the western and central portions of the 1913 segment of the Lincoln Highway and Loneliest Highway Special Recreation Management Area. Cumulative impacts could include increased large vehicle traffic, which could interfere with recreation access. While these impacts would be temporary, there could be cumulative long-term impacts including better access to the area because of new and improved access roads.

In the exploration area, cumulative impacts would result from the combined MGC and Renaissance exploration activities. There would be a decrease in solitude, naturalness, and unconfined recreation; hunters may see a decrease in the numbers of game animals; and increased vehicle traffic would not necessarily benefit all recreationists and some would cease using certain areas because of drilling activities.

4.4 Reasonably Foreseeable Future Actions

There is potential for future mining, oil and gas development, and increased recreation at the Pan Project location. Based on previous NEPA processes in Nevada, analysis of projects for which no proposed plan has been developed and submitted to BLM or other permitting authorities is not necessary and is discouraged. Because the type, amount, and location of disturbance cannot be quantified, potential environmental impacts cannot be determined. This reasonably foreseeable future action cumulative impact analysis is, therefore, speculative.

Pending the results of exploration, a gold mine or oil and gas development may be proposed. A mine could include shafts, open pits, rock disposal areas, heap leach processing facilities, roads, and other ancillary facilities. A larger access road could be built to allow adequate access for mine personnel, equipment, and operations.

Disturbance associated with a new mine cannot be reliably estimated at this time.

Emergent is currently conducting oil and gas exploration in the project vicinity. It is unknown, at this time, whether this exploration will result in a future exploration or a

production field. It is anticipated that ranching and recreation will continue at current levels in the project area for the foreseeable future.

4.4.1 Cumulative Impact Analysis for Reasonably Foreseeable Future Actions

Activities related to the proposed project in conjunction with other reasonably foreseeable future projects may result in cumulative impacts as discussed in the following sections.

4.4.1.1 Resource/Concern 1 – Cultural Resources

There would be no cumulative impacts to cultural resources in the exploration area from removal of mineral resource and the construction of mine facilities. Cultural resource surveys would be conducted and resources identified before disturbance. If cultural resources were found, they would be inventoried and recorded and a determination of eligibility would be conducted. The first course of action for cultural resources would be avoidance; however, when necessary, mitigation plans would be developed by BLM and the SHPO and implemented.

The center segment of the 1913 Lincoln Highway traverses the project area within the exploration area and is considered an unevaluated resource. The center segment will be avoided within 100 feet of the centerline to avoid adverse impacts to cultural resources.

4.4.1.2 Resource/Concern 2 – Wildlife and Special Status Species

Cumulative impacts to the sage-grouse leks south of Highway 50 would be substantially mitigated by the new MGC access road designed to avoid impacts to sage-grouse. Ranchers, recreationists, and other oil and gas or mining exploration or development projects will have ongoing impacts on the sage-grouse from continued use of the current access road. However, a new, well constructed, year round road is more attractive for driving and the new road divert traffic from the existing road, reducing impacts to greater sage-grouse.

Cumulative impacts to other wildlife and special status species are anticipated to be negligible, either because the resource is not present, there would be mitigation activities associated with exploration and development projects, or the impact would be temporary displacement of wildlife. Displacement of big game species from future actions cannot be quantified at this time because BLM has not received plans or notices of future actions.

4.4.1.3 Resource/Concern 3 – Vegetation Resources

There would be impacts to vegetation in the access area from mining, oil and gas development, ranching, and recreation activities. The magnitude of these impacts cannot be estimated at this time because it is unknown whether a mine or oil and gas development would include a new access road, widening of the proposed access road, or no access road in this area.

Cumulative impacts to vegetation resources in the exploration area would be experienced from MGC and Renaissance exploration activities. Vegetation would be removed for open pits, rock disposal areas, heap leach processing facilities, roads, and other ancillary facilities. There would be impacts to vegetation resources in the current exploration area from removal of the mineral resource and the construction of mine facilities. If a plan were submitted to BLM for a mine or oil and gas development, it is anticipated that the

plan would include mitigation and reclamation. These activities would result in reduction of long-term impacts from potential activities. This vegetation disturbance would be increased by the Renaissance exploration activities.

4.4.1.4 Resource/Concern 4 — Soil Resources

There would be impacts to soil in the access area from MGC, Emergent, ranching, and recreation activities. The magnitude of these impacts cannot be estimated at this time because it is unknown whether a mine or oil and gas development plan would include a new access road, widening of the proposed access road, or no access road in this area.

Cumulative impacts to soil resources in the exploration area would be experienced from future activities. Soil would be removed for roads and facilities. There would be impacts to soil resources from removal of the mineral resource. If a mine or oil and gas development plan were submitted to BLM, it is anticipated that the plan would include mitigation and reclamation. These activities would result in reduction of long-term impacts from potential mine activities. This soil disturbance would be increased by the Renaissance exploration activities.

4.4.1.5 Resource/Concern 5 – Visual Resources

MGC would build a new access road from Highway 50 to the project area as part of the current project. It is unknown whether a mine or oil and gas development plan would include a new access road, widening of the proposed access road, or no access road in this area; therefore the magnitude of cumulative impacts cannot be determined at this time.

There would be no cumulative impacts to visual resources in the exploration area from future projects. The exploration area is currently managed as a BLM VRM Class VI area, which allows for major modification of the existing character of the landscape. However; every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements. Because mine or oil and gas development plans are not available, it cannot be determined what facilities would be visible from different viewsheds (Highway 50 for instance). If a mine or oil and gas development plan were submitted, it is anticipated that the plan would include mitigation and reclamation. These activities would result in reduction of long-term impacts from potential mine activities.

4.4.1.6 Resource/Concern 6 – Recreation Resources

While recreation in the area is low, there would be impacts to recreation from the future potential projects in the vicinity of the western portion of the 1913 segment of the Lincoln Highway and Loneliest Highway Special Recreation Management Area. Cumulative impacts could include increased large vehicle traffic, which could interfere with recreation access. While these impacts would be temporary, there could be cumulative long-term impacts including better access to the area because of new and improved access roads.

In the exploration area, there would be impacts to recreation because there would be a decrease in solitude, naturalness, and unconfined recreation; hunters may see a decrease in the numbers of game animals, and increased vehicle traffic could interfere with recreational access.

5 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

5.1 Introduction

Chapter 3 provides the rationale for issues that were considered but not analyzed further and identifies those issues analyzed in detail in this EA. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

5.2 Persons, Groups and Agencies Consulted

BLM has Memorandums of Understanding with NDOW and NDEP/BMRR, both of whom are cooperating agencies.

The BLM Ely District Office sent formal consultation letters, dated December 8, 2010, to the following tribes and tribal councils informing them of the proposed project and EA and inviting comments and concerns:

- Battle Mountain Band Council;
- Cedar City Band of Paiutes;
- Confederate Tribes of the Goshute Indian Reservation;
- Duckwater Shoshone Tribe;
- Elko Band Council;
- Ely Shoshone Tribe;
- Indian Peaks Band;
- Kaibab Band of Paiute Indians;
- Las Vegas Paiute Tribe;
- Moapa Band of Paiutes;
- Wells Band Council;
- Paiute Indian Tribe of Utah;
- Shivwits Band of Paiutes;
- Skull Valley Band of Goshutes;
- South Fork Band Council;
- Te-Moak Tribe of the Western Shoshone Indians of Nevada; and
- Yomba Shoshone Tribe.

The Duckwater Shoshone Tribe has requested a field visit to the project area. The BLM will schedule and organize this field visit. No other tribal comments or concerns have been voiced.

5.3 Summary of Public Participation

The public participation section will be completed for the final EA.

5.3.1 Public Scoping

As required by NEPA, the BLM solicited public comments on the Proposed Action. The BLM used comments received during the scoping period to determine:

- Important issues to be addressed;
- Possible data needs and sources;
- Alternatives to be assessed; and
- Potential environmental and socioeconomic effects of the various alternatives.

The public scoping period began on March 11, 2011. Information concerning the Pan Project was available on the BLM website listed below. Written comments were received through March 25, 2011.

http://www.blm.gov/nv/st/en/fo/ely_field_office/blm_programs/planning/eydo_nepa_documentation.html

No public scoping comments were received by the BLM.

5.4 List of Preparers

5.4.1 BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Miles Kreidler	Project Lead	Plan Review, Minerals Specialist
Gina Jones	NEPA Coordinator	NEPA, Ecology
Lisa Gilbert	Archeologist Technician	Cultural Resources
Mindy Seal	Natural Resource Specialist	Noxious and Invasive, Non-native Species, Vegetation
Marian Lichtler	Wildlife Specialist	Wildlife, Special Status Species, Migratory Birds
Erin Rajala	Outdoor Recreation Planner	Recreation, VRM, Special Designations
Mark D'Aversa	Hydrogeologist	Air, Soils, Riparian/Wetlands, Water Quality
Stephanie Trujillo	Lands Specialist	Plan Review
Amanda Anderson	Range Specialist	Range
Doris Metcalf	Supervisory Resource Specialist	Plan Review
Dave Davis	Geologist	Plan Review
Melanie Peterson	Environmental Protection Specialist	Hazardous and Solid Waste, Public Safety, Human Health & Safety

5.4.2 Non-BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Susan Serreze Walsh Environmental Scientists and Engineers (Walsh)	Project Manager	Soils, Visual Resources, Recreation, Document Coordination
Melody Bourret (Walsh)	Vegetation Specialist	Noxious and Invasive, Non-native Weed Species, Vegetation
Scott Severs (Walsh)	Wildlife Specialist	Wildlife, Special Status Species, Migratory Birds

Chris Jessen (Walsh)	GIS Specialist	Maps and Data
Jen Perry (Walsh)	GIS Specialist	Maps and Data
Howard Levine (Ecology and Environment)	NEPA Specialist	Technical and Quality Review

6 REFERENCES, GLOSSARY AND ACRONYMS

6.1 References Cited

- Bureau of Land Management. 1985. BLM Manual 9113 – Roads. U.S. Department of the Interior. June.
- _____. 1986. Visual Resource Inventory. BLM Manual-8410-1. U.S. Department of the Interior.
- _____. 2004a. Protecting Cultural Resources. BLM Handbook 8140. U.S. Department of the Interior.
- _____. 2004b. Castleworth Ventures, Inc. Pan Exploration Project Environmental Assessment NV-040-04-010. May.
- _____. 2005. Land Use Planning Handbook. BLM Handbook H-1601-1. Rel. 1-1693. U.S. Department of the Interior.
- _____. 2007. Ely Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/EIS). Ely District Office. U.S. Department of the Interior.
- _____. 2008a. Ely District Record of Decision and Approved Resource Management Plan. Ely District Office. U.S. Department of the Interior.
- _____. 2008b. Instruction Memorandum (IM) No. 2008-050 Migratory Bird Treaty Act – Interim Management Guidance. U.S. Department of the Interior. January.
- Gustavson Associates. 2010. NI 43-101 Preliminary Economic Assessment of the Pan Gold Project, White Pine County, Nevada. July.
- JBR Environmental Consultants, Inc. (JBR). 2010a. Waters of the United States Jurisdictional Determination for the Pan Project White Pine County Nevada. December.
- _____. 2010b. Wildlife Baseline Survey Including Threatened, Endangered, and Sensitive Species Pan Project White Pine County Nevada. October.
- _____. 2010c. Vegetation Baseline Survey Including Threatened, Endangered, and Sensitive Species Pan Project White Pine County Nevada. November.
- _____. 2010d. Soil Literature Review for the Pan Project White Pine County Nevada. November.
- MGC Resources Inc. 2010. Pan Project Plan of Operations Amendment (Case File No. NVN-078305) and Reclamation Permit Application Modification (Permit No. 0228). November.

Natural Resources Conservation Service (NRCS). 2010. Soil survey website.
Downloaded December 16, 2010 from <http://soildatamart.nrcs.usda.gov/>.

NatureServe 2010, NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia.
<http://www.natureserve.org/explorer>. Accessed July 28, 2010.

Nevada Department of Wildlife (NDOW). 2010. 2009 – 2010 Big Game Status.

Nevada Natural Heritage Program (NNHP). 2010. Nevada Rare Plant Atlas. Rare Plant Fact Sheets (compiled in 2001). Available online at:
<http://heritage.nv.gov/atlas/atlas.html>.

6.2 Acronyms and Abbreviations

ACEC	Areas of Critical Environmental Concern
AHPA	Archaeological and Historic Preservation Act of 1974
AMSL	Above Mean Sea Level
AR	Administrative Record
ARPA	Archaeological Resources Protection Act of 1979
ATV	All Terrain Vehicle
BLM	Bureau of Land Management
BMP	Best Management Practice
BMRR	Bureau of Mining Regulation and Reclamation
CAA	Clean Air Act of 1977
CFR	Code of Federal Regulations
CWA	Clean Water Act of 1977
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
Emergent	Emergent Value Group
EO	Executive Order
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
HMA	Herd Management Area
IB	Information Bulletin
ID	interdisciplinary
IM	Instructional Memorandum
JBR	JBR Environmental Consultants Inc.
MBTA	Migratory Bird Treaty Act
MGC	Midway Gold Corporation

MSHA	U.S. Mining Safety and Health Administration
MOU	Memorandum of Understanding
NAC	Nevada Administrative Code
NAGPRA	Native American Graves Protection and Repatriation Act
NARC	Native American Religious Concerns
NCSHPO	National Council of State Historic Preservation Officers
NDEP	Nevada Department of Environmental Protection
NDOT	Nevada Department of Transportation
NDOW	Nevada Division of Wildlife
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Policy Act
NHL	National Historic Landmark program
NHPA	National Historic Preservation Act
NNHP	Nevada Natural Heritage Program
OHV	Off-Highway Vehicle
OSHA	Occupational Safety and Health Administration
Pan Project	Pan Exploration Project
PL	Public Law
POO	Plan of Operations
Renaissance	Renaissance Exploration Inc
RFFA	reasonably foreseeable future action
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-Way
SHPO	State Historic Preservation Officer
SRP	Special Recreation Permit
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management
WSA	Wilderness Study Area

Attachment 1 – Standard Operating Procedures

Standard Operating Procedures (SOPs)

Air Resources

1. Use dust abatement techniques on unpaved, unvegetated surfaces to minimize airborne dust.
2. Cover construction materials and stockpiled soils if they are a source of fugitive dust.
3. Use dust abatement techniques before and during surface clearing, and excavation activities.

Water Resources

1. Construct a containment barrier around all pumps utilized within 100 feet (30.5 meters) of a stream channel. The containment barrier would be of sufficient size to contain all fuel being stored or used on site.
2. All drill holes must be plugged per Nevada State statute (Division of Water Resources "Regulations for Water Well and Related Drilling") as warranted. If artesian flow is encountered, the drill hole must be plugged immediately. The location, depth, and relative flow rate of any water intercepted shall be reported to the Ely District Manager or the Authorized Officer. Drill cuttings will be returned to the hole if possible, or at a minimum, raked and spread out so as not to impede regrowth of vegetation or to create erosion problems.

Soil Resources

1. Require the use of specialized low-surface impact equipment (e.g., balloon tired vehicles) or helicopters, as determined by the BLM Authorized Officer, for activities in off-road areas where it is deemed necessary to protect fragile soils and other resource values.
2. During periods of adverse soil moisture conditions caused by climatic factors such as thawing, heavy rains, snow, flooding, or drought, suspend activities on existing roads that could create excessive surface rutting. When adverse conditions exist, the operator would contact the BLM Authorized Officer for an evaluation and decision based on soil types, soil moisture, slope, vegetation, and cover.
3. When preparing the site for reclamation, include contour furrowing, terracing, reduction of steep cut and fill slopes, and the installation of water bars, as determined appropriate for site-specific conditions.
4. Restoration requirements include reshaping, re-contouring, and/or resurfacing with topsoil, installation of water bars, and seeding on the contour. Removal of structures such as culverts, concrete pads, cattle guards, and signs would usually be required. Fertilization and/or fencing of the disturbance may be required. Additional erosion control measures (e.g., fiber matting and barriers) to discourage road travel may be required.

5. Lands containing unstable/highly erodible soils may require additional protective measures such as restrictions on surface entry during periods of excessive runoff, avoidance of selected areas, and special reclamation techniques.
6. Topsoil stockpiles and road berms, if scheduled to be left in place over the growing season, will be seeded with an approved site-specific interim seed mix to reduce erosion, preserve the biological flora and fauna, and prevent the establishment of noxious weeds and other undesirable plant species.
7. To provide for effective rehabilitation of the disturbed area, all available growth medium, as practical, will be removed and stockpiled. Any trees removed will be separated from soils and stockpiled separately.

Vegetation Resources

1. Where seeding is required, use appropriate seed mixture and seeding techniques approved by the BLM Authorized Officer.
2. Keep removal and disturbance of vegetation to a minimum through construction site management (e.g., using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.).
3. Generally, conduct reclamation with native seeds that are representative of the indigenous species present in the adjacent habitat. Document rationale for potential seeding with selected non-native species. Possible exceptions would include use of non-native species for a temporary cover crop to out-compete weeds. In all cases, ensure seed mixes are approved by the BLM Authorized Officer prior to planting.
4. An area is considered to be satisfactorily reclaimed when all disturbed areas have been recontoured to blend with the natural topography, erosion has been stabilized, and an acceptable vegetative cover has been established. Use the Nevada Guidelines for Successful Revegetation prepared by the Nevada Division of Environmental Protection, the BLM, and the U.S. Department of Agriculture Forest Service (or most current revision or replacement of this document) to determine if revegetation is successful.
5. Reclamation bond release criteria would include the following:
 - The perennial plant cover of the reclaimed area would equal or exceed perennial cover of selected comparison areas (normally adjacent habitat). If the adjacent habitat is severely disturbed, an ecological site description may be used as a cover standard. Cover is normally crown cover as estimated by the point intercept method. Selected cover can be determined using a method as described in Sampling Vegetation Attributes, Interagency Technical Reference, 1996, BLM/RS/ST- 96/002+1730. The reclamation plan for the area project would identify the site-specific release criteria and associated statistical methods in the reclamation plan or permit.
6. Respread weed-free vegetation removed from the right-of-way to provide protection, nutrient recycling, and seed source.

7. Reseeding may be required, in which case a site-specific seed mixture will be recommended by the operator and approved by the Authorized Officer. Seeding is recommended only between October 1 and March 15 for the northern part of the District, and November 1 through March 1 for the southern part of the District.
8. The operator shall reclaim the disturbed area concurrently or at the earliest feasible time by recontouring to conform with pre-existing topography (including filling of trenches), to the extent possible, followed by redistribution of stockpiled topsoil over the reclaimed area. Compacted areas will be ripped to a depth of 12 inches unless in solid rock. Ripped areas may need further work to break up large clods and produce a fine-grained seed bed.

Fish and Wildlife

1. Protect active raptor nests in undisturbed areas within 0.25 mile of areas proposed for vegetation conversion using species-specific protection measures. Inventory areas containing suitable nesting habitat for active raptor nests prior to the initiation of any project.
2. Any new disturbance commencing between April 15 and July 15 must first be surveyed for nesting migratory birds. If nests are found, the project may be moved or delayed until July 15.

Special Status Species

1. Actions which will adversely impact a special status species (including federally listed, proposed, and candidate species, state protected species, and BLM sensitive species or its habitat), will be modified in order to prevent possible future listing of these species as threatened or endangered. The following restrictions apply to the following species:
 - Sage-grouse. No surface disturbance will be allowed within an active sage-grouse lek. No surface use will be allowed within ½ mile of an active sage-grouse lek from midnight until 10 a.m. during the period March 15 through May 31.
 - Ferruginous Hawk. Ferruginous Hawk nest sites will not be disturbed. No surface use will be allowed within ½ mile of an occupied Ferruginous Hawk nest during the period March 1 through June 30 or until the birds have fledged (left) the nest.
 - Pygmy Rabbit. BMP - Within the Ely District, there are favorable habitats selected by pygmy rabbits as burrowing areas. Therefore, prior to entry into these areas, the operator will discuss the proposed activities with the Bureau of Land Management's authorized officer who may require additional measures for the protection of pygmy rabbits and their habitats. Such measures may include:
 - a. Avoidance of selected areas
 - b. Restriction of activities near burrows during the months of April through June.

Cultural Resources

1. All identified cultural resources will be avoided by project-related activities per the Nevada BLM standards for cultural resources. If avoidance is not feasible, mineral activities must cease until mitigation in that area is completed.
2. Ensure that all activities within 100 meters of the discovery are halted and the discovery is appropriately protected, until the BLM authorized officer issues a Notice to Proceed. A Notice to Proceed may be issued by the BLM under any of the following conditions:
 - Evaluation of potentially eligible resource(s) results in a determination that the resource(s) are not eligible;
 - The fieldwork phase of the mitigation and treatment has been completed; and
 - The BLM has accepted a summary description of the fieldwork performed and a reporting schedule for that work.
3. Archaeological monitors may be required in special cases to avoid cultural resources in proximity to where mineral activities will be carried out. The BLM archaeologist will be informed prior to mineral activities in proximity to these cultural resources that require monitoring.
4. The operator will inform all persons associated with the project that knowingly disturbing cultural resources (historic or archaeological) or collecting artifacts is illegal.
5. Ground disturbing activities within the view shed of sites now on the National Register of Historic places will be discussed with the BLM archaeologist prior to proceeding.
6. View sheds of cultural resources now on the National Register of Historic places will be reclaimed after mining exploration activities, to as natural a condition as possible.
7. Documentation (photos, drawings, etc.) will be collected on all sites eligible for the National Register of Historic Places. This will allow tracking of human and natural caused deterioration.

Paleontological Resources

1. When paleontological resources of potential scientific interest are encountered (including all vertebrate fossils and deposits of petrified wood), leave them intact and immediately bring them to the attention of the BLM Authorized Officer.

Visual Resources

1. During the implementation of vegetation treatments, create irregular margins around treatment areas to better maintain the existing scenic character of the landscape.

Travel Management and Off-highway Vehicle Use

1. Design access roads requiring construction with cut and fill to minimize surface disturbance and take into account the character of the landform, natural contours,

cut material, depth of cut, where the fill material would be deposited, resource concerns, and visual contrast. Avoid construction of access roads on steep hillsides and near watercourses where alternate routes provide adequate access.

Recreation

1. Do not allow surface or underground disturbance to occur within 100 yards (horizontally or vertically) of known cave resources.
2. Where appropriate, do not allow ground disturbing activities within 100 yards of cave entrances, drainage areas, subsurface passages, and developed recreation sites. Do not dispose of waste material or chemicals in sinkholes or gates by cave entrances. If during construction activities any sinkholes or cave openings are discovered, cease construction activities and notify the BLM authorized officer.

Mineral Exploration and Extraction

1. Notify the BLM authorized officer within 5 days of completion of reclamation work so that timely compliance inspections can be completed.
2. Any change or amendment to your minerals operation must be brought to the attention of the Ely District Manager or an authorized officer prior to implementation of the change on the ground.
3. Existing access must be used whenever possible. Off-road vehicular travel shall be held to an absolute minimum necessary to complete operations. Additional roads, if needed, will be kept to an absolute minimum and the location of routes must be approved by the Authorized Officer prior to construction.
4. All survey monuments, claim markers, witness corners, reference monuments, bearing trees, etc., must be protected against destruction, obliteration or damage. When operations are concluded, the operator will remove all survey markers, stakes, flagging, etc., for which the operator has no further need.
5. Removal or alteration of existing improvements (fences, cattle guards, etc.) is not allowed without prior approval of the Authorized Officer. Existing improvements will be maintained in a serviceable and safe condition. Upon completion of operations, any authorized facility alterations will be restored to the specifications of the authorized officer.
6. The operator will work with the BLM Authorized Officer on the containment of drilling fluids and drill hole cuttings. Adequately fence, post, or cover mud and separation pits.

Fire Management

1. Within the area of operation, every effort will be made to prevent, control, or suppress any fire. Fire-fighting equipment may be required to be on site while operations are in progress, depending on hazards inherent in the type of operation and fire hazard levels. Report uncontrolled fires immediately to the BLM Ely District Manager or Authorized Officer. The BLM Fire Dispatch telephone number is (775) 289-1925 or 1-800-633-6092. After working hours, call 911 or the White Pine County Sheriff's Office at (775) 289-8801, the Lincoln County

Sheriff's Office at (775) 962-5151, or the Nye County Sheriff's Office at (775) 482-8101.

Noxious and Invasive Weed Management

1. To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes, all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or Project Area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out, and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the District Weed Coordinator or designated contact person.
2. To eliminate the transport of soil-borne noxious weed seeds, roots, or rhizomes, infested soils or materials will not be moved and redistributed on weed-free or relatively weed-free areas. In areas where infestations are identified or noted and infested soils, rock, or overburden must be moved, these materials will be salvaged and stockpiled adjacent to the area from which they were stripped. Appropriate measures will be taken to minimize wind and water erosion of these stockpiles. During reclamation, the materials will be returned to the area from which they were stripped. Further, all source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials used for construction, maintenance, or reclamation will be inspected and found to be free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District. Inspections will be conducted by a weed scientist or qualified biologist.
3. In areas of known noxious weed infestations, monitoring of noxious weeds will be conducted on an annual basis. Monitoring will be conducted until project release. If the spread of noxious weeds is noted, the infested areas will be further evaluated to determine the appropriate remedial action and appropriate treatment. Appropriate weed control procedures, including target species, timing of control, and method of control, will be determined in consultation with BLM personnel.
4. No noxious weeds will be allowed on the site for reclamation release. Any noxious weeds that become established will be controlled. Bonds will be retained for weed control until the site is returned to desired vegetative conditions.
5. To eliminate the introduction of noxious weed seeds, roots, or rhizomes, all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for reclamation or stabilization activities, feed, bedding will be certified free of

- plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District.
6. Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
 7. Reclamation would normally be accomplished with native seeds only. These would be representative of the indigenous species present in the adjacent habitat. Rationale for potential seeding with selected non-native species would be documented. Possible exceptions would include use of non-native species for a temporary cover crop to out-compete weeds. Where large acreages are burned by fires and seeding is required for erosion control, all native species could be cost prohibitive and/or unavailable. In all cases, seed mixes would be approved by the BLM Authorized Officer prior to planting.
 8. Mixing of herbicides and rinsing of herbicide containers and spray equipment would be conducted only in areas that are safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).
 9. Methods used to accomplish weed and insect control objectives would consider seasonal distribution of large wildlife species.

Hazardous Materials

1. Properly dispose of all deleterious materials or substances. Take measures to isolate, control, and properly dispose of toxic and hazardous materials.
2. Remove and properly dispose of all trash, garbage, debris, and foreign matter. Maintain the disposal site and leave it in a clean and safe condition. Do not allow burning at the site.
3. Do not drain oil or lubricants onto the ground surface. Immediately clean up any spills under 25 gallons; clean up spills over 25 gallons as soon as possible and report the incident to the BLM Authorized Officer and Nevada Division of Environmental Protection.
4. The operator will work with the BLM Authorized Officer on the containment of drilling fluids and drill hole cuttings. Adequately fence, post, or cover mud and separation pits, and hazardous material storage areas.
5. Containerized petroleum products such as gasoline, diesel fuel, helicopter fuel, and lubricants in approved containers. Properly store hazardous materials in separate containers to prevent mixing, drainage, or accidents.
6. All construction, operation, and maintenance activities will comply with all applicable Federal, State, and local laws and regulations regarding the use of hazardous substances and the protection of air and water quality.
7. All trash, garbage, debris, and foreign matter must be removed and properly disposed. Site must be maintained and left in a clean and safe condition. Burning will not be allowed at the site.

Attachment 2 – Weed Risk Assessment

Attachment 2 – Weed Risk Assessment

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Midway Gold Corporation Pan Project

White Pine County, Nevada

On January 11, 2011 a Noxious & Invasive Weed Risk Assessment was completed for the MGC Resources Inc. (MGC) Pan Project in White Pine County, NV. The Pan Project is a site-specific exploration plan that includes disturbance from drilling exploration holes and groundwater monitoring wells, constructing additional access roads and drill sites, obtaining geotechnical and metallurgical samples, and providing the facilities necessary to support these activities. The proposed activities will expand the MGC Plan of Operation (POO) NVN-078350 boundary to include a new access road and create 75 acres of new surface disturbance on public lands for a total authorized and proposed surface disturbance of 100 acres within 10,756 acres of public lands for which MGC holds claims under the U.S. General Mining Laws.

The Ely District weed inventory data was consulted. There are currently no mapped weed infestations within the project area. The following species are found along roads or drainages leading to the project:

<i>Acroptilon repens</i>	Russian knapweed
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Lepidium draba</i>	Whitetop/Hoary cress
<i>Cirsium vulgare</i>	Bull thistle

In June and July 2010, field weed surveys were completed for this project. Cheatgrass (*Bromus tectorum*), curvseed butterwort (*Ceratocephala testiculata*), purple mustard (*Chorispora tenella*), filaree (*Erodium cicutarium*), clasping peppergrass (*Lepidium perfoliatum*), and halogeton (*Halogeton glomeratus*) were common in areas adjacent to roads and other disturbed areas such as those used for recreation, mineral exploration, and livestock. Halogeton dominates areas adjacent to the proposed main access road and interspersed areas of the salt desert shrub community. Cheatgrass is found in the understory of the sagebrush community adjacent to the lower montane woodland. Based on Ely District Weed Inventory the project area was last inventoried for noxious weeds in 2008.

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in

	the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.
--	--

For this project, the factor rates as Moderate (5) at the present time. The knap weeds and hoary cress spread easily with new disturbance and are commonly found along transportation corridors. The proposed activities will include 75 acres of new disturbance using heavy equipment for access roads, drill sites and supporting facilities. It is likely that the project area could become infested due to the proximity of documented weed species in the area.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as High (8) at the present time. The site is considered weed free and any new infestations within and outside of the project area could have adverse cumulative effects on native plant communities.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (40). This indicates that the project can proceed as planned as long as the following measures are followed:

- Prior to entering public lands, the contractor, operator, or permit holder will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- Monitoring will be conducted for a period no shorter than the life of the permit or until bond release and monitoring reports will be provided to the Ely District Office. If the presence and/or spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with Ely District

Office personnel and will be in compliance with the appropriate BLM Handbook sections and applicable laws and regulations. All weed control efforts on BLM-administered lands will be in compliance with BLM Handbook H-9011, H-9011-1 Chemical Pest Control, H-9014 Use of Biological Control Agents of Pests on Public Lands, and H-9015 Integrated Pest Management. Submission of Pesticide Use Proposals and Pesticide Application Records will be required.

- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes, all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. If equipment is brought to the site from areas that currently have Sahara mustard, such as Clark County, then equipment needs to be cleaned using air instead of water. Sahara mustard seeds are more likely to stick and propagate if water is used. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axles, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out, and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the District Weed Coordinator or designated contact person.
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for reclamation or stabilization activities, feed, bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District Office.
- Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- Reclamation would normally be accomplished with native seeds only. These would be representative of the indigenous species present in the adjacent habitat. Rationale for potential seeding with selected non-native species would be documented. Possible exceptions would include use of non-native species for a temporary cover crop to out-compete weeds. Where large acreages are burned by fires and seeding is required for erosion control, all native species could be cost prohibitive and/or unavailable. In all cases, seed mixes would be approved by the BLM Authorized Officer prior to planting.
- No noxious weeds will be allowed on the site at the time of reclamation release. Any noxious weeds that become established will be controlled.

Reviewed by: /s/Mindy Seal

5/6/2011

Mindy Seal
Natural Resource Specialist

Date

Attachment 3 – Spill Control Plan for Fuel Transfer

MGC Pan Project Spill Control Plan for Fuel Transfer

Fuel will be transferred from tanks on pickup trucks to backhoes onsite. Sorbent materials shall be immediately available to control fuel spills up to 50 gallons during fuel transfer. To minimize overfilling and spillage, the tanks shall be manually filled by the fuel delivery transport operator while maintaining visual contact with the fuel level within the tank. At least one facility personnel trained in the implementation of this Plan is required to be present at all times to observe loading operations. No transfer operations shall begin until the employee is present and ensures that all of the procedures listed below are followed.

The fuel delivery transport operator is the individual responsible for loading the fuel tank. There is no aboveground piping or equipment subject to damage by vehicles entering the facility (40 CFR 112.8(d)(5)). The following practices will be followed:

1. Facility personnel will unlock the fill port.
2. The fuel delivery transport operator will secure tank vehicle, set brakes and block wheels to remind the operator to disconnect, close and check all valves for leakage before departing the facility.
3. The fuel delivery transport operator shall ensure that all piping and fueling equipment is grounded to prevent static electricity.
4. The fuel delivery transport operator shall don chemical resistant gloves and eye protection. Manual tank level readings will allow facility personnel to determine if there is sufficient volume available to accept the intended delivery volume, and to determine the volume of fuel necessary to fill the tank to no more than 90% of its capacity. Record these measurements and volume calculations.
5. Facility personnel will place a catch pan or absorbent pad under fittings to catch any potential leaks during transfer or when fittings are disconnected.
6. The fuel delivery transport operator will start fuel flow slowly.
7. The fuel delivery transfer operator or one facility personnel that has been trained in this Plan must be present and attentive at all times.
8. Do not fill each tank above 90% of its rated volume.
9. When refueling is complete, the fuel delivery transfer operator will close tank vehicle fuel valve and return delivery hose to vehicle.
10. Facility personnel will use the manual tank level readings to confirm and document the amount of fuel delivered. The volume measurements from the level readings and truck meter should be compared to confirm the amount of liquid delivered.
11. All refueling valves and the fuel tank fill cap must be closed when finished. Facility personnel will lock the fill port.
12. Spillage should be noted and remedial action taken promptly by facility personnel.
13. Before departure, facility personnel will examine the truck unloading area and the transport vehicle for leakage and correct as necessary.
14. Should a spill occur, it will be immediately cleaned up using absorbent material.
15. Measures would be taken to control the spill, and the BLM, NDEP, and/or the Emergency Response Hotline would be notified, as required. If any oil, hazardous

material, or chemicals are spilled during operations, they would be cleaned up as soon as MGC becomes aware that a spill has occurred. After clean up, the oil, toxic fluids, or chemicals and any contaminated material would be removed from the site and disposed of at an approved disposal facility.